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0020089	HBSAG	Hepatitis B Virus Surface Antigen with Reflex to Confirmation			x															
0020090	HBSAB	Hepatitis B Virus Surface Antibody			x															
0020091	HBCAB	Hepatitis B Virus Core Antibodies (Total)			x															
0020092	HBCABM	Hepatitis B Virus Core Antibody, IgM			x															
0020093	HAVABM	Hepatitis A Virus Antibody, IgM			x															
0020094	HBEAG	Hepatitis Be Virus Antigen			x															
0020095	HBEAB	Hepatitis Be Virus Antibody			x															
0020128	HBSAG CONF	Hepatitis B Virus Surface Antigen, Confirmation			x															
0020454	HEPCHRONIC	Hepatitis B Virus Panel, Chronic with Reflex to HBsAg Confirmation			x				x											
0020591	HAVAB	Hepatitis A Virus Antibodies (Total)			x															
0020597	HEP A PAN	Hepatitis A Virus Panel			x															

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0020642	HTLV WBLOT	Human T-Lymphotropic Virus Types I/II Antibodies, Western Blot			x															
0040131	RNA EXT	RNA Extraction and Storage																	x	
0049020	HGB UNSTAB	Hemoglobin, Unstable			x															
0049090	HEINZ	Heinz Body Stain			x															
0050148	C2	Complement Component 2																	x	
0050156	C5	Complement C5, Concentration																	x	
0051164	HTLV PAN	Human T-Lymphotropic Virus (HTLV) Types I/II Antibodies by ELISA with Reflex to HTLV-I/II Confirmation by Western Blot			x															
0051394	CYT 12 SE	Cytokine Panel 13, Serum			x															
0051532	IL4 DO	Interleukin 4, Serum			x															
0051533	IL5 DO	Interleukin 5, Serum			x															
0051537	IL6 DO	Interleukin 6, Serum			x															

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0051538	IL8 DO	Interleukin 8, Serum			x															
0051588	IL2 DO	Interleukin 2, Serum			x															
0055174	FOODPRO 10	Allergens, Food, Profile 10																		x
0055273	FTA CSF G	Treponema pallidum Antibody, IgG by IFA (CSF)			x															
0055567	T CELL-F	T-Cell Clonality Screening by PCR			x															
0060149	MC FUNG	Fungal Culture			x															
0060738	MC AFBR	Acid-Fast Bacillus (AFB) Culture and AFB Stain with Reflex to Mycobacterium tuberculosis Complex Detection and Rifampin Resistance by PCR			x		x													
0097688	BREAKAGE	Chromosome Analysis - Breakage, Fanconi Anemia, Whole Blood																x		
0099460	CALCULI	Calculi Analysis		x				x			x									
2000623	NG REQUEST	Cytology, Non-Gynecologic			x															

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2002124	COMMONFOOD	Allergens, Foods, Common 10																		x
2002926	BLAST DERM	Blastomyces dermatitidis Antigen Quantitative by EIA																x		
2003126	ANTI IGA	Anti-IgA Antibody by ELISA (Test on Delay as of 03/18/2025)																x		
2004011	MUSA IHC	Muscle-Specific Actin (MSA) by Immunohistochemistry																		x
2005231	CALCPHOTO	Calculi Analysis With Photo		x				x												
2005545	MPL	MPL Mutation Detection by Capillary Electrophoresis			x															
2005593	NATAL ABS	Natalizumab Antibodies																x		
2006193	BCELL SCRN	B-Cell Clonality Screening (IgH and IgK) by PCR			x															
2006328	GLUT TOT	Glutathione Total																x		
2006978	FOODPRO 14	Allergens, Food, Profile 26 IgE																		x

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2007132	BRAF HCL	BRAF V600E Mutation Detection in Hairy Cell Leukemia by Real-Time PCR, Quantitative			x															
2007479	PAIN HYB U	Drug Profile, Targeted by Tandem Mass Spectrometry and Enzyme Immunoassay, Urine									x									
2007573	HBSAG PN	Hepatitis B Virus Surface Antigen with Reflex to Confirmation, Prenatal			x															
2007575	HBSAGCONPN	Hepatitis B Virus Surface Antigen Confirmation, Prenatal			x															
2007715	K LITTLEAG	Cellano Antigen Typing - Patient		x		x				x										
2007717	FYA AG	FYA Antigen Typing - Patient																	x	
2007719	M AG	M Antigen Typing - Patient																	x	
2007721	S LITTLEAG	Little s Antigen Typing - Patient																	x	
2007723	LEB AG	LEB Antigen Typing - Patient																	x	

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2007725	FYB AG	FYB Antigen Typing - Patient																	x	
2007727	JKA AG	JKA Antigen Typing - Patient																	x	
2007729	JKB AG	JKB Antigen Typing - Patient																	x	
2007731	K AG	Kell Antigen Typing - Patient		x		x	x			x										
2007733	LEA AG	LEA Antigen Typing - Patient																	x	
2007735	N AG	N Antigen Typing - Patient																	x	
2007737	P1 AG	P1 Antigen Typing - Patient		x		x				x										
2007739	S AG	S Antigen Typing - Patient																	x	
2007933	C AG	C Antigen Typing - Patient																	x	
2007939	C LITTLEAG	Little c Antigen Typing - Patient																	x	
2007941	E AG	E Antigen Typing - Patient																	x	
2007943	E LITTLEAG	Little e Antigen Typing - Patient																	x	

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2009288	PAIN HYB 2	Drug Profile, Targeted with Interpretation by Tandem Mass Spectrometry and Enzyme Immunoassay, Urine									x									
2009318	MYD88	MYD88 L265P Mutation Detection by PCR, Quantitative			x															
2010138	AML1-ETO Q	RUNX1::RUNX1T1 (AML1::ETO) t (8;21) Detection, Quantitative																	x	
2010151	HEV IGG	Hepatitis E Virus (HEV) Antibody, IgG			x															
2010156	HEV IGM	Hepatitis E Virus (HEV) Antibody, IgM			x															
2010673	CALR	CALR (Calreticulin) Exon 9 Mutation Analysis by PCR			x															
2010775	MTBRIF PCR	Mycobacterium tuberculosis Complex Detection and Rifampin Resistance by PCR			x															

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2010784	HCV AB QR	Hepatitis C Virus Antibody by CIA with Reflex to HCV by Quantitative NAAT			x															
2011075	COCCI AG	Coccidioides Antigen Quantitative by EIA																x		
2011114	INV 16 QNT	CBFB::MYH11 inv (16) Detection, Quantitative																	x	
2012023	HEV PAN	Hepatitis E Virus (HEV) Antibodies, IgG and IgM			x															
2012141	HBE PAN	Hepatitis Be Virus Antigen and Antibody Panel			x															
2013333	HIVAGABGE	Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA with Reflex to HIV-1/HIV-2 Antibody Differentiation, Supplemental			x															
2013502	A1 AG	A1 Antigen Typing, Patient				x				x										
2013504	CW AG	Cw Antigen Typing, Patient				x				x										
2013506	SDA AG	Sd(a) Antigen Typing, Patient				x				x										

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2013508	WRA AG	Wr(a) Antigen Typing, Patient				x				x										
2013690	P-KPA_IRL	Kp(a) Pt Antigen Typing IRL		x		x				x										
2014285	HBV PAN PN	Hepatitis B Virus (HBV) Perinatal Exposure Follow-up by CIA, Panel			x				x											
3000066	NPM1 QNT	NPM1 Mutation Detection by RT-PCR, Quantitative			x															
3001161	FLT3-PCR	FLT3 ITD and TKD Mutation Detection			x															
3002601	CYT13 PLA	Cytokine Panel 13, Plasma			x															
3002616	CYT MON P	Cytokine Panel, Monokines, Plasma			x															
3002617	CYT TH1 P	Cytokine Panel, TH1, Plasma			x															
3002618	TNFA PLA	Tumor Necrosis Factor - alpha, Plasma			x															
3002619	IL8 PLA	Interleukin 8, Plasma			x															
3002620	IL6 PLA	Interleukin 6, Plasma			x															
3002621	IL5 PLA	Interleukin 5, Plasma			x															

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3002622	IL4 PLA	Interleukin 4, Plasma			x															
3002623	IL10 PLA	Interleukin 10, Plasma			x															
3002624	IL12 PLA	Interleukin 12, Plasma			x															
3002625	IL13 PLA	Interleukin 13, Plasma			x															
3002626	IL17 PLA	Interleukin 17, Plasma			x															
3002627	CYT TH2 P	Cytokine Panel, TH2, Plasma			x															
3002628	IFNG PLA	Interferon gamma, Plasma			x															
3002629	IL1B PLA	Interleukin 1 beta, Plasma			x															
3002630	IL2 PLA	Interleukin 2, Plasma			x															
3002631	IL2R PLA	Interleukin 2 Receptor, Soluble, Plasma			x															
3002956	KITD816V Q	KIT (D816V) Mutation by ddPCR, Quantitative			x															
3002989	HEPACUTEQR	Hepatitis Panel, Acute with Reflex to HBsAg Confirmation and Reflex to HCV by Quantitative NAAT			x															

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3003144	DELDUP	Deletion/Duplication Analysis by MLPA			x															
3003259	CYT13 CSF	Cytokine Panel 13, CSF			x															
3003260	IL6 CSF	Interleukin 6, CSF			x															
3003261	IL2R CSF	Interleukin 2 Receptor, Soluble, CSF			x															
3003751	JAK2V617FQ	JAK2 (V617F) Mutation by ddPCR, Quantitative			x															
3004046	JAK2 QUAL	JAK2 (V617F) Mutation by ddPCR, Qualitative			x															
3004232	F8-COMP	Hemophilia A (F8) 2 Inversions with Reflex to Sequencing and Reflex to Deletion/Duplication									x									
3004716	GALT NGS	Galactosemia (GALT) Sequencing and Deletion/Duplication			x															
3005636	HYPO PAN	Hypoglycemia Panel (Sulfonylureas), Serum or Plasma																x		

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3005839	DX BCR RFX	Diagnostic Qualitative BCR::ABL1 Assay with Reflex to p190 or p210 Quantitative Assays			x															
3005840	QNT BCRMAJ	Quantitative Detection of BCR::ABL1, Major Form (p210)			x															
3005949	ALD/DR	Aldosterone and Renin Direct, With Ratio													x					
3005961	C5 INH PAN	C5 Inhibitors Drug Monitoring Panel							x											
3006201	AIENCDEMS	Autoimmune Encephalopathy/Dementia Panel, Serum			x															
3006203	AIDYS	Autoimmune Dysautonomia and Gastrointestinal Dysmotility Panel, Serum			x															
3006204	AIEPS	Autoimmune Epilepsy Panel, Serum			x															
3006208	AIMYS	Autoimmune Myelopathy Panel, Serum			x															

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3006210	AIPEDS	Autoimmune Pediatric CNS Disorders, Serum			x															
3006234	AISPSS	Autoimmune Stiff-Person Disorders, Serum			x															
3006254	JCV AB	JC Virus Antibody by ELISA, Serum with Reflex to Inhibition Assay																x		
3016631	HBV EXP	HBV Exposure Panel			x				x											
3016813	PEPSIN	Gastric Pepsin A, Respiratory																x		
3016839	ETPMFRFX	JAK2 (V617F) Mutation by ddPCR, Qualitative With Reflex to CALR (Calreticulin) Exon 9 Mutation Analysis by PCR and MPL Mutation Detection			x															
3016840	PV REFLEX	JAK2 (V617F) Mutation by ddPCR, Qualitative With Reflex to JAK2 Exon 12-Mutation Analysis by PCR			x															

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3016968	QNT BCRMIN	Quantitative Detection of BCR::ABL1, Minor Form (p190)			x															
3017399	TPSAB1	TPSAB1 Copy Number Analysis by ddPCR			x															
3017610	IRL AB PKG	RBC Antibody ID Package (IRL)										x								
3017611	IRL ABID	RBC Antibody ID Prenatal - Reflex to Titer										x								
3018640	HZLNUT COM	Allergen, Food, Hazelnut Components IgE	x																	
3018776	HBSAGRDABQ	Hepatitis B Virus Surface Antigen With Reflex to Confirmation and Reflex to Hepatitis Delta Virus Antibody by ELISA With Reflex to Hepatitis Delta Virus by Quantitative PCR					x													
3018922	PMLQNT	PML::RARA Detection by RT-PCR, Quantitative			x															
3018943	HBV TRI PN	HBV Prenatal Triple Panel			x															

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3018964	AIMDS2	Autoimmune Movement Disorder Panel, Serum			x															
3018965	NEURO R5	Autoimmune Neurologic Disease Panel With Reflex, Serum			x															
3019004	AMMON PLA	Ammonia Level, Plasma																x		
3019856	VPRENATHEP	Viral Hepatitis Prenatal Panel			x															
3019876	BG DELDUP	Beta Globin (HBB) Deletion/Duplication by MLPA			x															
3020079	JAK2EX12	JAK2 Exon 12-Mutation Analysis by PCR			x															
3020269	INV16 QNT	CBFB::MYH11 inv (16) Detection, Quantitative	x																	
3020274	RUNX1 QNT	RUNX1::RUNX1T1 (AML1::ETO) t (8;21) Detection, Quantitative	x																	
3020324	RNAEXT	RNA Extraction and Storage	x																	
3020700	SF1GYN IHC	SF-1 GYN by Immunohistochemistry	x																	

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3020830	TFPPCR	Tropical Fever Panel by PCR	x																	
3021115	IGAIHC	Immunoglobulin A (IgA) by Immunohistochemistry	x																	
3021139	BCELLTISS	B-Cell Clonality Screening (IgH and IgK), Tissue, by PCR	x																	
3021140	TCELLTISS	T-Cell Clonality Screening, Tissue, by PCR	x																	
3021166	BRG-1 IHC	Brahma-Related Gene-1 (BRG-1) by Immunohistochemistry	x																	
3021184	IGMIHC	Immunoglobulin M (IgM) by Immunohistochemistry	x																	
3021200	MYCOMEIA	Aspergillus Galactofuranose Antigen by EIA, Urine	x																	
3021214	C_C_LITTLE	C and c Antigen Typing-Patient	x																	
3021215	E_ELITTLE	E and e Antigen Typing-Patient	x																	
3021216	FYA_FYB AG	Fy(a) and Fy(b) Antigen Typing-Patient	x																	

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3021217	JKA_JKB_AG	Jk(a) and Jk(b) Antigen Typing - Patient	x																	
3021218	S_SLITTLE	S and Little s Antigen Typing- Patient	x																	
3021219	M_N AG	M and N Antigen Typing - Patient	x																	
3021220	LEA_LEB AG	Le(a) and Le(b) Antigen Typing- Patient	x																	
3021221	ABORH DISC	ABORH Discrepancy Investigation, IRL	x																	
3021225	C-2	Complement Component C2	x																	
3021226	C-5	Complement Component C5	x																	
3021230	MYD88TISS	MYD88 L265P Mutation Detection, Tissue, by PCR, Quantitative	x																	
3021309	WALNUT COM	Allergen, Food, Walnut (Juglans spp) Components IgE	x																	
3021341	LMP1 IHC	Latent Membrane Protein 1 (LMP1) by Immunohistochemistry	x																	

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TEST CHANGE

Hepatitis B Virus Surface Antigen with Reflex to Confirmation

0020089, HBSAG

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 2 mL serum to an ARUP standard transport tube. (Min: 1 mL) Also acceptable: K2EDTA plasma.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Performed and Reported times indicated are for screening of the HBsAg. If results for HBsAg screen are repeatedly reactive with an index value between 1.00 and 50.00, then HBsAg Confirmation will be added. Additional charges apply.
CPT Codes:	87340; if reflexed, add 87341
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This panel of assays should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antigen	Negative

TEST CHANGE

Hepatitis B Virus Surface Antibody

0020090, HBSAB

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Heat-inactivated , severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Quantitative Chemiluminescent Immunoassay (CLIA)
Note:	Results greater than 1,000.00 IU/L are reported as greater than 1,000.00 IU/L
CPT Codes:	86706
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antibody	Negative

~~Components~~	~~Reference Interval~~	~~Result~~
~~Hepatitis B Surface Antibody~~	~~Less than 10.00 IU/L~~	~~Negative~~
~~Hepatitis B Surface Antibody~~	~~Greater than or equal to 10.00 IU/L~~	~~Positive~~

TEST CHANGE

Hepatitis B Virus Core Antibodies (Total)

0020091, HBCAB

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL) Also acceptable: K2EDTA plasma.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	This assay tests for IgG and IgM antibodies, but does not differentiate between them.
CPT Codes:	86704
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues and cellular and tissue-based products (HCT/P).	

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Core Antibodies, Total	Negative

TEST CHANGE

Hepatitis B Virus Core Antibody, IgM

0020092, HBCABM

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL) Also acceptable: K2EDTA plasma.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	
CPT Codes:	86705
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

~~Negative~~

Test Number	Components	Reference Interval
	Hepatitis B Core Antibody, IgM	Negative

TEST CHANGE

Hepatitis A Virus Antibody, IgM

0020093, HAVABM

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL) Also acceptable: K2EDTA plasma.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens collected in citrate-based anticoagulant. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Order this assay when acute hepatitis A infection is suspected.
CPT Codes:	86709
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

~~Negative~~

Test Number	Components	Reference Interval
	Hepatitis A Antibody, IgM	Negative

TEST CHANGE

Hepatitis Be Virus Antigen

0020094, HBEAG

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Potassium EDTA plasma, green (lithium heparin), or green (sodium heparin) plasma.
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1.0 mL serum or plasma to an ARUP standard transport tube. (Min: 0.6 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heat-inactivated, severely hemolyzed, lipemic specimens, or specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 4824 hours; Refrigerated: 147 days; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Order this assay only when a specimen is repeatedly reactive for hepatitis B surface antigen.
CPT Codes:	87350
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Negative

Test Number	Components	Reference Interval
	Hepatitis Be Antigen	Negative

TEST CHANGE

Hepatitis Be Virus Antibody

0020095, HBEAB

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Lavender (EDTA) or green (lithium heparin).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens that are heat-inactivated, grossly hemolyzed, grossly icteric, grossly lipemic specimens, or specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 4824 hours; Refrigerated: 147 days; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	
CPT Codes:	86707
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

~~Negative~~

Test Number	Components	Reference Interval
	Hepatitis Be Antibody	Negative

TEST CHANGE

Hepatitis B Virus Surface Antigen, Confirmation

0020128, HBSAG CONF

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 2.5 mL serum to an ARUP standard transport tube. (Min: 1.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material or obvious microbial contamination. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Chemiluminescent Immunoassay (CLIA)
Note:	Order this assay only when a specimen is repeatedly reactive for hepatitis B surface antigen.
CPT Codes:	87341
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antigen Confirmation	Non Confirmed

~~Non Confirmed~~

TEST CHANGE

Hepatitis B Virus Panel, Chronic with Reflex to HBsAg Confirmation

0020454, HEPCHRONIC

Specimen Requirements:	
Patient Preparation:	Refer to individual components.
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 3.5 mL serum to an ARUP standard transport tube. (Min: 2.5 mL).
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma, specimens that are heat-inactivated, grossly hemolyzed, grossly icteric, grossly lipemic, or specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14~~7~~ days; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Order this panel when the patient is known to have chronic hepatitis B infection to determine the degree of infection and monitor the development of immunity. If results for HBsAg are repeatedly reactive with an index value between 1.00 and 50.00, then HBsAg Confirmation will be added. Additional charges apply.
CPT Codes:	86706; 86707; 87340; 87350; if reflexed, add 87341
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This panel of assays should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Component	Interpretation
Hepatitis B Surface Antibody	Less than 10.00 IU/L : Negative Greater than or equal to 10.00 IU/L: Positive

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antibody	Negative
		~~Components~~ / ~~Reference Interval~~ / ~~Result~~ ~~Hepatitis B Surface Antibody~~ / ~~Less than 10.00 IU/L~~ / ~~Negative~~ ~~Hepatitis B Surface Antibody~~ / ~~Greater than or equal to 10.00 IU/L~~ / ~~Positive~~
	Hepatitis B Surface Antigen	Negative
	Hepatitis Be Antibody	Negative
	Hepatitis Be Antigen	Negative

TEST CHANGE

Hepatitis A Virus Antibodies (Total)

0020591, HAVAB

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL) Also acceptable: K2EDTA plasma.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens collected in citrate-based anticoagulant. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	This assay tests for IgG and IgM antibodies, but does not differentiate between them.
CPT Codes:	86708
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

~~Negative~~

Test Number	Components	Reference Interval
	Hepatitis A Antibodies, Total	Negative

TEST CHANGE

Hepatitis A Virus Panel

0020597, HEP A PAN

Specimen Requirements:	
Patient Preparation:	Refer to individual components.
Collect:	Serum separator tube. Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens containing particulate material. Severely hemolyzed or lipemic specimens. Heat-inactivated specimens. Specimens collected in citrate-based anticoagulant.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	
CPT Codes:	86708; 86709
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis A Antibodies, Total	Negative
	Hepatitis A Antibody, IgM	Negative

TEST CHANGE

Human T-Lymphotropic Virus Types I/II Antibodies, Western Blot

0020642, HTLV WBLOT

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: lavender (K2EDTA~~K2 EDTA~~), lavender (K3EDTA~~K3 EDTA~~), green (sodium heparin), green (lithium heparin), or light blue (sodium citrate).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL).
Transport Temperature:	Frozen.
Unacceptable Conditions:	Specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 7 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Western Blot
Note:	Order this assay only when a specimen is repeatedly reactive for HTLV I or HTLV I/II antibodies.
CPT Codes:	86689
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry~~re-entry~~ protocols, or for screening human cell, tissues,~~Human Cell, Tissues~~ and c~~C~~ellular- and tissue-based products~~Tissue-Based Products~~ (HCT/P).

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

Reference Interval:

Test Number	Components	Reference Interval
	HTLV I/II Antibodies, Western Blot	Negative

~~Negative~~

TEST CHANGE

Hemoglobin, Unstable

0049020, HGB UNSTAB

Specimen Requirements:	
Patient Preparation:	Test results are unreliable in infants younger than 6 months of age.
Collect:	Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	DO NOT FREEZE. Transport 5 mL whole blood. (Min: 2 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Samples more than 7 days old. Specimens collected on infants less than 6 months old. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Visual Identification
Note:	
CPT Codes:	83068
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Unstable hemoglobin disease is due to an alteration in the amino acid sequence involved in the interface between the alpha
and beta chains of the hemoglobin molecule. These alterations significantly change the structure of the molecule resulting in
denaturation and precipitation of globin chains.

The Unstable Hemoglobin assay is a qualitative test that does not identify the variant when present. Additional evaluation is
suggested for positive tests (Hemoglobin Evaluation by HPLC with Reflex to Electrophoresis and/or RBC Solubility, ARUP test
3017101). False positive results can occur in specimens with high hemoglobin F levels (infants less than 6 months old) and
specimens tested beyond 7 days from draw time.

Reference Interval:

Refer to report~~Negative~~

TEST CHANGE

Heinz Body Stain

0049090, HEINZ

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA), pink (K2EDTA), or green (sodium or lithium heparin).
Specimen Preparation:	Transport 5 mL whole blood in original tube. (Min: 2 mL) Also acceptable: whole blood in an ARUP standard transport tube.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Samples greater than 96 hours old. Specimens from infants under 6 months of age; test results are unreliable. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 96 hours; Frozen: Unacceptable
Methodology:	Supravital Stain
Note:	
CPT Codes:	85441; 85445
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	

Reference Interval:

Test Number	Components	Reference Interval
	Heinz Body Stain, Direct	Negative
	Heinz Body Stain, Induced	Normal

TEST CHANGE

Human T-Lymphotropic Virus (HTLV) Types I/II Antibodies by ELISA with Reflex to HTLV-I/II Confirmation by Western Blot

0051164, HTLV PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube~~Separator Tube~~ (SST). Also acceptable: Light blue (sodium citrate), green (sodium~~Blue (Sodium Citrate), Green (Sodium~~ or lithium heparin),~~Lithium Heparin)~~ or l~~L~~avender (EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum or plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 7 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Enzyme-Linked Immunosorbent Assay (ELISA) / Qualitative Western Blot
Note:	If HTLV I/II screen is repeatedly reactive, then HTLV I/II Confirmation by Western Blot will be added. Additional charges apply. *Performed and Reported times indicated are for screening of the anti-HTLV. Refer to Human T-Lymphotropic Virus Types I/II Antibodies, Western Blot (0020642) for additional information regarding Performed and Reported times.
CPT Codes:	86790; if reflexed, add 86689
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry~~re-entry~~ protocols, or for screening human cell, tissues~~Human Cell, Tissues~~ and c~~C~~ellular~~-~~ and tissue-based products~~Tissue-Based Products~~ (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	HTLV I/II Antibodies by ELISA	Negative

TEST CHANGE

Cytokine Panel 13, Serum

0051394, CYT 12 SE

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube, or plain red.
Specimen Preparation:	CRITICAL FROZEN: Separate serum from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.4 mL) Freeze serum within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Additional specimens must be submitted when multiple tests are ordered. Ship in an ARUP Standard Transport Tube.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520 x12; 83529
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.	
Reference Interval:	

Test Number	Components	Reference Interval
	Interferon gamma, Serum	5.8 pg/mL or less
	Interleukin 1 beta, Serum	7.1 pg/mL or less
	Interleukin 10, Serum	6.0 pg/mL or less
	Interleukin 12, Serum	2.6 pg/mL or less
	Interleukin 13, Serum	7.8 pg/mL or less
	Interleukin 17, Serum	2.1 pg/mL or less
	Interleukin 2 Receptor, Soluble, Serum	353.5 - 1019.8 pg/mL
	Interleukin 2, Serum	2.1 pg/mL or less
	Interleukin 4, Serum	2.2 pg/mL or less
	Interleukin 5, Serum	2.1 pg/mL or less
	Interleukin 6, Serum	2.0 pg/mL or less
	Interleukin 8, Serum	3.0 pg/mL or less
	Tumor Necrosis Factor - alpha, Serum	11.5 pg/mL or less

TEST CHANGE

Interleukin 4, Serum

0051532, IL4 DO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube, or plain red.
Specimen Preparation:	CRITICAL FROZEN: Separate serum from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.4 mL) Freeze serum within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP Standard Transport Tube.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 4, Serum	2.2 pg/mL or less

TEST CHANGE

Interleukin 5, Serum

0051533, IL5 DO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube, or plain red.
Specimen Preparation:	CRITICAL FROZEN: Separate serum from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.4 mL) Freeze serum within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP Standard Transport Tube.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 5, Serum	2.1 pg/mL or less

TEST CHANGE

Interleukin 6, Serum

0051537, IL6 DO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube, or plain red.
Specimen Preparation:	CRITICAL FROZEN: Separate serum from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.4 mL) Freeze serum within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP Standard Transport Tube.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83529
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 6, Serum	2.0 pg/mL or less

TEST CHANGE

Interleukin 8, Serum

0051538, IL8 DO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube, or plain red.
Specimen Preparation:	CRITICAL FROZEN: Separate serum from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.4 mL) Freeze serum within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP Standard Transport Tube.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 8, Serum	3.0 pg/mL or less

TEST CHANGE

Interleukin 2, Serum

0051588, IL2 DO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube, or plain red.
Specimen Preparation:	CRITICAL FROZEN: Separate serum from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.4 mL) Freeze serum within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP Standard Transport Tube.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 2, Serum	2.1 pg/mL or less

TEST CHANGE

Treponema pallidum Antibody, IgG by IFA (CSF)

0055273, FTA CSF G

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	Transfer 1 mL CSF to an ARUP standard transport tube. (Min: 0.2 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Serum. Contaminated, heat-inactivated, or hemolyzed specimens.
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 145 ~~5~~ days; Frozen: 1 year
Methodology:	Qualitative Indirect Fluorescent Antibody (IFA)
Note:	
CPT Codes:	86780
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

The significance of a reactive result in the FTA-ABS CSF test is unknown. The CSF from persons treated in the secondary or latent stage of syphilis and without signs of neurosyphilis may be reactive. A nonreactive result in the FTA-ABS CSF test suggests the absence of neurosyphilis.

Treponema pallidum (VDRL), Cerebrospinal Fluid with Reflex to Titer (0050206) is the recommended test for CSF specimens. If suspicion of neurosyphilis remains after VDRL testing, testing of the CSF with FTA-ABS may be considered.

Reference Interval:

Test Number	Components	Reference Interval
	Fluorescent Treponema Antibody CSF	Nonreactive

TEST CHANGE

T-Cell Clonality Screening by PCR

0055567, T CELL-F

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).), ~~tissue, formalin-fixed tissue.~~
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL. (Min: 1 mL) ~~Fresh Tissue: Freeze immediately. Transport 100 mg or 0.5-2.0 cm3 tissue~~ ~~FFPE Tumor Tissue: Formalin-fixed (10 percent neutral buffered formalin) and paraffin-embedded tissue. Protect from excessive heat. Tissue block will be returned after testing. Transport tissue block or four 10-micron shavings in a tissue transport kit (ARUP Supply #47808) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.~~
Transport Temperature:	Whole Blood or ~~,~~ Bone Marrow: Refrigerated. ~~Fresh Tissue: Frozen on dry ice.~~ ~~FFPE Tumor Tissue: Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.~~
Unacceptable Conditions:	Plasma, serum. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens. ~~Tissue: FFPE specimens fixed in any fixative other than 10 percent neutral buffered formalin.~~ Bone specimens submitted in non-EDTA decalcifier.
Remarks:	~~If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will be held until clarification is provided.~~
Stability:	Whole Blood or Bone Marrow: Refrigerated: 7 days; Frozen: Unacceptable ~~Fresh Tissue: Ambient: Unacceptable; Refrigerated: 2 hours; Frozen: 1 year~~ ~~FFPE Tumor Tissue: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable~~
Methodology:	Capillary Electrophoresis / Polymerase Chain Reaction (PCR)
Note:	

CPT Codes:	81342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Fungal Culture

0060149, MC FUNG

Specimen Requirements:	
Patient Preparation:	
Collect:	Material or fluid from any body site, except blood.
Specimen Preparation:	Fluids: Transport 3 mL fluid in a sterile container. (Min: 1 mL). Material: Transfer to sterile container. A single specimen may be cultured for both bacteria and fungi. Place each specimen in an individually sealed bag.
Transport Temperature:	Specimens from a sterile body site (fluids, tissues, etc.): Room temperature. Cutaneous specimens (skin, hair, nails): Room temperature. Specimens from other nonsterile sites (respiratory, GI tract, etc.): Refrigerated.
Unacceptable Conditions:	Blood, catheter tips. Specimens submitted on slides.
Remarks:	Additional information required: Specimen source. Notify laboratory if Malassezia furfur is suspected; special media must be used for the cultivation of this yeast.
Stability:	CSF: Ambient: 48 hours; Refrigerated: Unacceptable; Frozen: Unacceptable Skin, hair, or nail specimens: Ambient: 2 weeks; Refrigerated: Unacceptable Frozen: Unacceptable All other specimens: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Culture
Note:	Identification is performed on any fungus recovered from a significant body site. Limited identification performed from nonsterile sites. Identification of molds and/or yeasts on positives is billed separately from culture. Ground tissue will be tested with a disclaimer. There is decreased sensitivity on ground tissue specimens for some fungi, including Mucorales species. A minimum of 1 mL of fluid is recommended for recovery of fungus. Volumes less than 1 mL may compromise recovery of fungus from culture and will be tested with a suboptimal disclaimer. Antifungal susceptibility testing is performed on molds only by

	request and requires organism identification.
CPT Codes:	87102; CPT codes for identification vary based on method.
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

TEST CHANGE

Acid-Fast Bacillus (AFB) Culture and AFB Stain with Reflex to *Mycobacterium tuberculosis* Complex Detection and Rifampin Resistance by PCR

0060738, MC AFBR

Specimen Requirements:	
Patient Preparation:	Three sputum specimens should be collected at 8-24 hour intervals (24 hours when possible) and at least one first-morning specimen. An individual order must be submitted for each specimen.
Collect:	Respiratory specimen, pleural fluid, CSF, tissue, gastric aspirate, or urine.
Specimen Preparation:	Transfer (for each collection) 5-10 mL specimen or visible tissue to a sterile container, 50 ml sterile specimen transport tube preferred (c~~C~~lient supply number # 29582). (Min: 1 mL) Place each specimen in an individually sealed bag.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Multiple same-site specimens (more than one in 24 hours), dry material, or material collected and transported on a swab.
Remarks:	Specimen source required.
Stability:	Ambient: 24 hours; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Stain / Culture / Matrix-Assisted Laser Desorption Ionization-Time of Flight (MALDI-TOF) Mass Spectrometry / 16S rDNA Sequencing / Polymerase Chain Reaction (PCR) / Broth Microdilution
Note:	Respiratory specimens under 5 mL are suboptimal and may compromise recovery of AFB from culture. Stain may not be performed on low volume samples. Eswabs are considered suboptimal and may have reduced sensitivity for AFB diagnosis. Preferred acceptable specimens: Tissue, pus, drainage, ~~or~~ wound aspirates submitted in sterile containers, or urine. Please submit an Eswab specimen only when tissue biopsy or fluid aspiration is not feasible for specimens collected surgically. Eswabs are not acceptable for respiratory fluid specimens (e.g., ~~eg,~~ sputum) and body fluids, and testing will be canceled. Positive cultures are reported as soon as detected. AFB stain, AFB identification of positives, and susceptibility tests are billed separately from culture. Identification of positive culture is billed by matrix-assisted laser desorption ionization (MALDI),

	PCR, and/or sequencing tests performed. The laboratory should be notified when the presence of Mycobacterium genavense or Mycobacterium haemophilum is suspected, as these organisms will not grow on media routinely used for Mycobacterium isolation. The laboratory should be notified when M. xenopii is suspected, as this organism requires a different temperature from routine culture setup. The laboratory should be notified if the specimen is from a patient with cystic fibrosis ~~patient,~~ as these specimens need additional decontamination from routine culture setup. Susceptibility will be performed on organisms isolated from a sterile source and isolates of Mycobacterium tuberculosis complex, M. chelonae, M. abscesses, M. fortuitum complex, M. immunogenum, M. mucogenicum. Susceptibility testing will be performed by request only on M. kansasii and M. marinum. Susceptibility testing of M. gordonae is inappropriate. For AFB susceptibility information, refer to Antimicrobial Susceptibility - AFB Mycobacteria (ARUP test code 0060217). For AFB culture on blood refer to Culture, Acid-Fast Bacillus, Blood (ARUP test code 0060060). After a positive result, repeat orders for Mycobacterium tuberculosis Complex Detection and Rifampin Resistance by PCR will continue to yield a positive result and repeat testing is not clinically indicated.
CPT Codes:	87116; if reflexed, add 87564; If concentration and stain apply, 87206 and 87015 will be added. CPT codes for identification and susceptibility vary based on method.
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data: Identification ordered and performed on positives. Susceptibility performed on all initial isolates of M. tuberculosis complex. Susceptibility performed on Mycobacterium other than M. tuberculosis complex isolates by request only. Susceptibility testing of M. gordonae is inappropriate.	
Reference Interval:	

TEST CHANGE

Chromosome Analysis - Breakage, Fanconi Anemia, Whole Blood

0097688, BREAKAGE

Specimen Requirements:	
Patient Preparation:	
Collect:	Dark green (sodium heparin).
Specimen Preparation:	Specimen must be received at performing laboratory within 48 hours of collection. Do not send to ARUP Laboratories. For direct submission instructions, please contact ARUP Referral Testing at 800-242-2787 ext. 5161. Transport 4 mL whole blood. (Min: 4 mL). Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Specimen must be sent directly to performing laboratory. Room temperature. Also acceptable: Refrigerated.
Unacceptable Conditions:	Clotted specimens.
Remarks:	Ordering physician name and NPI number are required.
Stability:	Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Cell Culture / Stain
Note:	Chromosome breakage study performed by culturing cells in both mitomycin-C (MMC) and diepoxybutane (DEB). These studies involve culturing of living cells; therefore, turnaround times given represent average times, which are subject to multiple variables. A routine Giemsa-banded chromosome analysis is included with breakage analysis. A processing fee will be charged if this procedure is canceled at the client's request after the test has been set up, or if the specimen integrity is inadequate to allow culture growth.
CPT Codes:	88230; add 88249 if performed
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	

Reference Interval:

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

Calculi ~~(Stone)~~ Analysis

0099460, CALCULI

Specimen Requirements:	
Patient Preparation:	
Collect:	Calculus specimen.
Specimen Preparation:	Air dry calculi and transfer to an ARUP standard transport tube. Larger calculi specimens may be transferred to a clean, empty urine cup (150 mL) or similar container.
Transport Temperature:	Room temperature. Also acceptable: Frozen or refrigerated.
Unacceptable Conditions:	Any collection or shipping container with a needle attached.
Remarks:	Calculi specimens transported in liquid, received in gel, or contaminated with blood require special handling which will delay analysis. Specimens that are wrapped in tape or embedded in wax will delay or prevent analysis and should not be submitted.
Stability:	Ambient: Indefinitely; Refrigerated: Indefitnitely; Frozen: Indefinitely
Methodology:	Quantitative Reflectance Fourier Transform Infrared Spectroscopy / Quantitative Polarizing Microscopy
Note:	Calculi samples that are transported in liquid or gel and received wet or bloody will be dried for 48-72 hours prior to analysis. One sample container will be tested per order. Please submit an order for each container submitted.
CPT Codes:	82365
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Calculi are the products of physiological processes that yield crystalline compounds in a matrix of biological substances~~compounds~~ and blood. ~~Matrix components are not reported.~~ The clinically significant crystalline components identified in calculi specimens are reported. Matrix components are not reported. ~~Gross description may not be consistent with the composition determined by FTIR analysis.~~

Reference Interval:

Refer to~~By~~ report

HOTLINE NOTE: There is a component change associated with this test. One or more components have been added or removed. Refer to the Hotline Test Mix for interface build information.

TEST CHANGE

Cytology, Non-Gynecologic

2000623, NG REQUEST

Specimen Requirements:	
Patient Preparation:	
Collect:	Non-Gynecologic Body Fluids, Brushings, or Washings. For specific instructions refer to Cytopathology Specimen Collection and~~&~~ Handling.
Specimen Preparation:	Fixed Fluid: Prefer 20-60 mL of patient sample combined with ~~Transport all available specimen to an ARUP Standard Transport Tube in~~ equal parts ~~cytology~~ fixative (total 40-120 mL). ~~.~~ Preferred fixatives:~~fixative is~~ CytoLyt, ~~or~~ PreservCyt, or 50% alcohol. Spinal or Vitreous~~.~~ ~~Fresh Unfixed~~ Fluid: Submit all available specimen, minimum 1 mL of patient sample. ~~Must be refrigerated immediately after collection.~~ Slides: Transport specimen on fixed or unfixed slides. Please notate on the slide label whether fixed or unfixed. Fresh Unfixed Fluid (Local Clients): A minimum of 20 mL or entire collection.
Transport Temperature:	Fresh Unfixed Fluid: Refrigerated. Fixed Fluid: Room temperature. Also acceptable: Refrigerated. Fixed or Unfixed Slides: Room temperature. Also acceptable: Refrigerated
Unacceptable Conditions:	Specimen received in expired fixative vial, f~~F~~rozen specimens.
Remarks:	Submit source information with the specimen.
Stability:	Fresh Unfixed Fluid: Ambient: Unacceptable; Refrigerated: 72 hours; Frozen: Unacceptable Fixed Fluid: Ambient: 1 week; Refrigerated: 1 week; Frozen: Unacceptable Fixed or Unfixed Slides: Ambient: 1 week; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Microscopy
Note:	
CPT Codes:	88108 or 88112 or 88160 or 88104 and/or 88305. Additional CPT codes may apply if special studies are required
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	
Reference Interval:	

TEST CHANGE

Blastomyces dermatitidis Antigen Quantitative by EIA

2002926, BLAST DERM

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red, serum separator tube (SST), lavender (K2 or K3EDTA), green (sodium or lithium heparin), light blue (sodium citrate), CSF, or BAL.
Specimen Preparation:	Transfer 2 mL serum or plasma to an ARUP standard transport tube. (Min: 1.2 mL) Transfer 1 mL CSF to an ARUP standard transport tube. (Min: 0.8 mL) Transfer 1 mL BAL to an ARUP standard transport tube. (Min: 0.5 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Room temperature or refrigerated.
Unacceptable Conditions:	Urine
Remarks:	Specimen source required.
Stability:	Ambient: 2 weeks; Refrigerated: 2 weeks; Frozen: 2 months
Methodology:	Quantitative Enzyme Immunoassay (EIA)
Note:	
CPT Codes:	87449
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Refer to report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

Anti-IgA Antibody by ELISA (Test on Delay as of 03/18/2025)

2003126, ANTI IGA

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube (SST).
Specimen Preparation:	Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Room temperature or refrigerated.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 1 week; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Refer to report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

Calculi ~~(Stone)~~ Analysis Wwith Photo

2005231, CALCPHOTO

Specimen Requirements:	
Patient Preparation:	
Collect:	Calculus specimen.
Specimen Preparation:	Air dry calculi and transfer to an ARUP standard transport tube. Larger calculi specimens may be transported in a clean, empty urine cup (150 mL) or similar container.
Transport Temperature:	Room temperature.
Unacceptable Conditions:	Specimens wrapped in tape or embedded in wax will delay or prevent analysis and should not be submitted.
Remarks:	Calculi specimens transported in liquid, received in gel, or contaminated with blood require special handling which will delay analysis. Specimens that are wrapped in tape or embedded in wax will delay or prevent analysis and should not be submitted.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Indefinitely
Methodology:	Quantitative Reflectance Fourier Transform Infrared Spectroscopy / Quantitative Polarizing Microscopy
Note:	Calculi samples submitted for Calculi ~~(Stone)~~ Analysis Wwith Photo that are transported in liquid or gel and received wet or bloody will be dried for 48-72 hours prior to analysis. One sample container will be tested per order. Please submit an order for each container submitted.
CPT Codes:	82365
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Calculi are the products of physiological processes that yield crystalline compounds in a matrix of biological substances~~compounds~~ and blood. ~~Matrix components are not reported.~~ The clinically significant crystalline components identified in calculi specimens are reported. Matrix components are not reported.Gross description may not be consistent with the composition determined by FTIR analysis.

Reference Interval:

TEST CHANGE

MPL Mutation Detection by Capillary Electrophoresis

2005545, MPL

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA). ~~).~~
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or frozen tissue. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Capillary Electrophoresis
Note:	The test will detect *MPL* mutations W515K, W515L, W515A, and S505N.
CPT Codes:	81338
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Natalizumab Antibodies

2005593, NATAL ABS

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red. Also acceptable: Serum separator tube (SST).
Specimen Preparation:	Allow blood to clot at room temperature for 30 minutes. Separate serum from cells within 1 hour. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.5 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Refrigerated
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 2 Weeks; Frozen: 2 Weeks
Methodology:	Qualitative Bridging Enzyme-Linked Immunosorbent Assay
Note:	
CPT Codes:	83516
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

By report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

B-Cell Clonality Screening (IgH and IgK) by PCR

2006193, BCELL SCRN

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).), ~~tissue, formalin-fixed tissue.~~
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL) ~~Fresh Tissue: Freeze immediately. Transport 100 mg or 0.5-2.0 cm3 tissue.~~ ~~FFPE Tumor Tissue: Formalin-fixed (10 percent neutral buffered formalin) and paraffin-embedded tissue. Protect from excessive heat. Tissue block will be returned after testing. Transport tissue block or four 10-micron shavings in a tissue transport kit (ARUP Supply #47808) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.~~
Transport Temperature:	Whole Blood, Bone Marrow: Refrigerated. ~~Fresh Tissue: Frozen on dry ice.~~ ~~FFPE Tumor Tissue: Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.~~
Unacceptable Conditions:	Plasma, serum. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens. ~~Tissue: FFPE specimens fixed in any fixative other than 10 percent neutral buffered formalin.~~ Bone specimens submitted in non-EDTA decalcifier.
Remarks:	~~If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will be held until clarification is provided.~~
Stability:	Whole Blood or Bone Marrow: Refrigerated: 7 days; Frozen: Unacceptable ~~Fresh Tissue: Ambient: Unacceptable; Refrigerated: 2 hours; Frozen: 1 year~~ ~~FFPE Tumor Tissue: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable~~

Methodology:	Capillary Electrophoresis / Polymerase Chain Reaction (PCR)
Note:	
CPT Codes:	81261; 81264
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Reference Interval:

TEST CHANGE

Glutathione Total

2006328, GLUT TOT

Specimen Requirements:	
Patient Preparation:	
Collect:	Yellow (ACD solution A) or yellow (ACD solution B) (ARUP supply #49658). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.
Specimen Preparation:	Transport whole blood in original collection container. ACD solution A: 8.5 mL (Min: 4.2 mL) or ACD solution B: 6 mL (Min: 3 mL) or Transfer 1 mL aliquot whole blood from a fully drawn tube to an ARUP standard transport tube with documentation of original collection tube (Min: 1 mL). Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Critical refrigerated
Unacceptable Conditions:	
Remarks:	Collection tube must be filled greater than 50% of total volume.
Stability:	Ambient: Unacceptable; Refrigerated: 3 weeks; Frozen: Unacceptable
Methodology:	Quantitative Kinetic Assay
Note:	
CPT Codes:	82978
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Refer to report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

BRAF V600E Mutation Detection in Hairy Cell Leukemia by Real-Time PCR, Quantitative

2007132, BRAF HCL

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or frozen tissue. Specimens collected in anticoagulants other than EDTA or sodium heparin. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Polymerase Chain Reaction (PCR)
Note:	
CPT Codes:	81210
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Drug Profile, Targeted by Tandem Mass Spectrometry and Enzyme Immunoassay, Urine

2007479, PAIN HYB U

Specimen Requirements:	
Patient Preparation:	
Collect:	Random urine.
Specimen Preparation:	Transfer 4 mL each into two (2) ARUP standard transport tubes of urine with no additives or preservatives. (Min: 2 mL each)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens exposed to repeated freeze/thaw cycles.
Remarks:	
Stability:	Ambient: 1 week (Clonazepam may be unstable at ambient condition beyond three days); Refrigerated: 1 month; Frozen: 1 month
Methodology:	Qualitative Liquid Chromatography-Tandem Mass Spectrometry / Qualitative Enzyme Multiplied Immunoassay Technique (EMIT) / Qualitative Spectrophotometry
Note:	Creatinine concentration is also provided. The carisoprodol immunoassay has cross-reactivity to carisoprodol and meprobamate.
CPT Codes:	80307; 80326; 80359; 80360; 80361; 80364; 80365; 80372; 80348; 80354; 80356; 80347; 80368; 80366; 80355 (Alt code: G0482)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Flagging indicates a positive result; not that the result is abnormal.

The absence of expected drug(s) and/or drug metabolite(s) may indicate noncompliance, inappropriate timing of specimen collection relative to drug administration, poor drug absorption, diluted/adulterated urine, or limitations of testing. The concentration must be greater than or equal to the cutoff concentration to be reported as present. If specific drug concentrations are required, contact the laboratory within two weeks of specimen collection to request confirmation and quantification by a second analytical technique. Interpretive questions should be directed to the laboratory.

Results based on immunoassay detection that do not match clinical expectations should be interpreted with caution. Confirmatory testing by mass spectrometry for immunoassay-based results is available, if ordered within two weeks of specimen collection. Additional charges apply.

For medical purposes only; not valid for forensic use.

For assay cutoff concentrations and more information about drug classes and metabolism, see

Additional Technical Information on the ARUP Laboratory Test Directory.

Reference Interval:

Refer to report

Inserted Cells

HOTLINE NOTE: There is a component change associated with this test. One or more components have been added or removed. Refer to the Hotline Test Mix for interface build information.

TEST CHANGE

Hepatitis B Virus Surface Antigen with Reflex to Confirmation, Prenatal

2007573, HBSAG PN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 2 mL serum or plasma to an ARUP standard transport tube. (Min: 1.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material or obvious microbial contamination. Heat-inactivated, severely hemolyzed or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Order this test only for prenatal specimens. Performed and Reported times indicated are for screening for HBsAg. If results for HBsAg screen are reactive (greater than or equal to ~~(>=~~1.0), then HBsAg Confirmation, Prenatal will be added. Additional charges apply.
CPT Codes:	87340; if reflexed, add 87341
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This test should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antigen, Prenatal	Negative

TEST CHANGE

Hepatitis B Virus Surface Antigen Confirmation, Prenatal

2007575, HBSAGCONPN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 2.5 mL serum or plasma to an ARUP standard transport tube. (Min: 1.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material or obvious microbial contamination. Heat-inactivated, severely hemolyzed or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Chemiluminescent Immunoassay (CLIA)
Note:	Order this test only for prenatal specimens that screen reactive for hepatitis B surface antigen.
CPT Codes:	87341
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
This test should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).	
Reference Interval:	

Test Number	Components	Reference Interval
	Hepatitis B Surface Ag Confirm, Prenatal	Non Confirmed

~~Non Confirmed~~

TEST CHANGE

Cellano Antigen Typing - Patient

2007715, K LITTLEAG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or p~~P~~ink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination~~Hemagglutination~~
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to~~By~~ report	

TEST CHANGE

Kell Antigen Typing - Patient

2007731, K AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pPink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative AgglutinationHemagglutination
Note:	When the K (KEL1) antigen is positive, the k (KEL2) antigen may be performed at an addtional charge.
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer toBy report	

TEST CHANGE

P1 Antigen Typing - Patient

2007737, P1 AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pPink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative AgglutinationHemagglutination
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer toBy report	

TEST CHANGE

Drug Profile, Targeted with Interpretation by Tandem Mass Spectrometry and Enzyme Immunoassay, Urine

2009288, PAIN HYB 2

Specimen Requirements:	
Patient Preparation:	Information on the patient's current medications must be submitted with the order. Include trade name, generic name, dosing frequency, and date of last dose, if known. Alternatively, please indicate if no prescription medication or drugs are being taken.
Collect:	Random urine.
Specimen Preparation:	Transfer 4 mL each into two (2) ARUP standard transport tubes of urine with no additives or preservatives. (Min: 2 mL each)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Specimens exposed to repeated freeze/thaw cycles.
Remarks:	
Stability:	Ambient: 1 week (Clonazepam may be unstable at ambient condition beyond three days); Refrigerated: 1 month; Frozen: 1 month
Methodology:	Qualitative Liquid Chromatography-Tandem Mass Spectrometry / Qualitative Enzyme Multiplied Immunoassay Technique (EMIT) / Qualitative Spectrophotometry
Note:	Creatinine concentration is also provided. The carisoprodol immunoassay has cross-reactivity to carisoprodol and meprobamate.
CPT Codes:	80307; 80326; 80359; 80360; 80361; 80364; 80365; 80372; 80348; 80345; 80356; 80347; 80368; 80366; 80355 (Alt code: G0482)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Flagging indicates a positive result; not that the result is abnormal.

The absence of expected drug(s) and/or drug metabolite(s) may indicate non-compliance, inappropriate timing of specimen collection relative to drug administration, poor drug absorption, diluted/adulterated urine, or limitations of testing. The concentration must be greater than or equal to the cutoff concentration to be reported as present. If specific drug concentrations are required, contact the laboratory within two weeks of specimen collection to request confirmation and quantification by a second analytical technique. Interpretive questions should be directed to the laboratory.

Results based on immunoassay detection that do not match clinical expectations should be interpreted with caution. Confirmatory testing by mass spectrometry for immunoassay-based results is available if ordered within two weeks of specimen collection. Additional charges

apply.

For medical purposes only; not valid for forensic use.

For assay cutoff concentrations and more information about drug classes and metabolism, see Additional Technical Information on the ARUP Laboratory Test Directory.

Reference Interval:

HOTLINE NOTE: There is a component change associated with this test. One or more components have been added or removed. Refer to the Hotline Test Mix for interface build Information.

TEST CHANGE

MYD88 L265P Mutation Detection by PCR, Quantitative

2009318, MYD88

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA). ~~FFPE tumor tissue.~~
Specimen Preparation:	Whole Blood : Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow : Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL) ~~FFPE Tumor Tissue : Formalin-fixed (10 percent neutral buffered formalin) and paraffin-embedded tissue. Protect from excessive heat. Transport tissue in a tissue transport kit (ARUP Supply #47808) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.~~
Transport Temperature:	Whole Blood, Bone Marrow: Refrigerated ~~FFPE Tumor Tissue : Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.~~
Unacceptable Conditions:	Plasma, serum. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens. ~~FFPE Tumor Tissue: Specimens fixed in any fixative other than 10 percent neutral buffered formalin.~~ Bone specimens submitted in non-EDTA decalcifier.
Remarks:	~~If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will be held until clarification is provided.~~
Stability:	Whole Blood or Bone Marrow: Refrigerated: 7 days; Frozen: Unacceptable ~~FFPE Tumor Tissue: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable~~
Methodology:	Real-Time Polymerase Chain Reaction
Note:	
CPT Codes:	81305
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Refer to report.
Reference Interval:

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Effective Date: October 19, 2026

TEST CHANGE

Hepatitis E Virus (HEV) Antibody, IgG

2010151, HEV IGG

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Red (clot activator), lavender (EDTA), pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.3 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~2 weeks~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	
CPT Codes:	86790
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

Deleted Cells

Deleted Cells

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis E Virus Ab, IgG	Negative

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Effective Date: October 19, 2026

TEST CHANGE

Hepatitis E Virus (HEV) Antibody, IgM

2010156, HEV IGM

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Red (clot activator), lavender (EDTA), pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.3 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~2 weeks~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	
CPT Codes:	86790
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

Deleted Cells

Deleted Cells

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis E Virus Ab, IgM	Negative

Effective Date: October 19, 2026

TEST CHANGE

CALR (Calreticulin) Exon 9 Mutation Analysis by PCR

2010673, CALR

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or frozen tissue. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Capillary Electrophoresis
Note:	
CPT Codes:	81219
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Mycobacterium tuberculosis Complex Detection and Rifampin Resistance by PCR

2010775, MTBRIF PCR

Specimen Requirements:	
Patient Preparation:	
Collect:	Respiratory specimens, CSF, pleural fluid, ~~or~~ tissue, or urine.
Specimen Preparation:	Unprocessed Specimens: Transport 5-10 mL respiratory specimen, CSF, ~~or~~ pleural fluid, or urine (Min: 1 mL) in a sterile container, or tissue large enough to be ground. Label as unprocessed. Processed Specimens: Transport 2-5 mL digested/decontaminated respiratory specimen, CSF, pleural fluid, or tissue in a sterile container. (Min: 1 mL) Place each specimen in an individually sealed bag.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Blood, paraffin blocks, stool, and swabs~~, and urine~~.
Remarks:	Specimen source required. Processed Specimens: Identify method used for digestion and provide smear results.
Stability:	Unprocessed: Ambient: 3 days; Refrigerated: 1 week; Frozen: 1 month Processed: Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 1 month
Methodology:	Qualitative Polymerase Chain Reaction (PCR)
Note:	Body fluids other than pleural fluid will be run with a disclaimer. Specimen source required. To perform this test, it is essential to know whether or not the submitted specimen has been processed (digestion and decontamination procedure). If processed, smear results must be provided as a comment on the test order or requisition. Delayed turnaround time will occur if the required information is not provided. After a positive result, repeat orders for *Mycobacterium tuberculosis* Complex Detection and Rifampin Resistance by PCR will continue to yield a positive result and repeat testing is not clinically indicated. The Xpert MTB/RIF test performance has not been evaluated with samples from pediatric patients.
CPT Codes:	87564
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Mycobacterial culture is a more sensitive method than molecular testing for the diagnosis of

tuberculosis and is still considered the gold standard. When possible, a culture must be performed regardless of the molecular method test result.

Reference Interval:

TEST CHANGE

Hepatitis C Virus Antibody by CIA with Reflex to HCV by Quantitative NAAT

2010784, HCV AB QR

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate from cells within 6 hours of collection. Transfer 2.5 mL serum or plasma to an ARUP standard transport tube. (Min: 1.5 mL). This test requires a dedicated transport tube submitted only for HCV AB QR testing.
Transport Temperature:	Frozen.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Severely hemolyzed, heat-inactivated, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 6 days; Frozen: 30 days~~2 months~~ (avoid freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Quantitative Polymerase Chain Reaction (PCR)
Note:	If the anti-HCV IgG antibody result is positive, the Hepatitis C Virus (HCV) by Quantitative NAAT will be added. Additional charges apply.
CPT Codes:	86803; if reflexed, add 87522
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissue, and cellular- and tissue-based products (HCT/P).

Components	Interpretation
Hepatitis C Antibody by CIA Index	0.79 IV or less: Negative 0.80 to 0.99 IV: Equivocal 1.00 IV or greater: Positive

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis C Antibody by CIA Interp	Negative

TEST CHANGE

Coccidioides Antigen Quantitative by EIA

2011075, COCCI AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red, serum separator tube (SST), lavender (K2 or K3 EDTA), pink (K2 EDTA), green (sodium or lithium heparin), or light blue (sodium citrate). Also acceptable: Urine, CSF, or BAL.
Specimen Preparation:	Transfer 2 mL serum or plasma to an ARUP standard transport tube. (Min: 1.2 mL) Transfer 1 mL urine or BAL to an ARUP standard transport tube. (Min: 0.5 mL) Transfer 1 mL CSF to an ARUP standard transport tube. (Min: 0.8 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Room temperature or refrigerated.
Unacceptable Conditions:	
Remarks:	Specimen source required.
Stability:	Ambient: 2 weeks; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Quantitative Enzyme Immunoassay (EIA)
Note:	
CPT Codes:	87449
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

By Report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

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Effective Date: October 19, 2026

TEST CHANGE

Hepatitis E Virus (HEV) Antibodies, IgG and IgM

2012023, HEV PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: lavender (K2EDTA~~K2 EDTA~~), lavender (K3EDTA~~K3 EDTA~~), or pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum or plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.3 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~2 weeks~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	
CPT Codes:	86790 x2
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

Deleted Cells

Deleted Cells

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis E Virus Ab, IgG	Negative
	Hepatitis E Virus Ab, IgM	Negative

TEST CHANGE

Hepatitis Be Virus Antigen and Antibody Panel

2012141, HBE PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Lavender (EDTA) or green (lithium heparin).
Specimen Preparation:	Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1.5 mL serum or plasma to an ARUP standard transport tube. (Min: 1.0 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimens that are heat-inactivated, grossly hemolyzed, grossly icteric, grossly lipemic, or specimens containing particulate material.
Remarks:	
Stability:	After separation from cells: Ambient: 4824 hours; Refrigerated: 147 days; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Order this assay only when a specimen is repeatedly reactive for hepatitis B surface antigen.
CPT Codes:	87350; 86707
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This assay should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis Be Antibody	Negative
	Hepatitis Be Antigen	Negative

TEST CHANGE

Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA with Reflex to HIV-1/HIV-2 Antibody Differentiation, Supplemental

2013333, HIVAGABGE

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST). Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 1.5 mL serum or plasma into an ARUP standard transport tube. (Min: 0.75 mL) Remove particulate material.
Transport Temperature:	Frozen.
Unacceptable Conditions:	Specimens containing particulate material. Severely hemolyzed or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48~~24~~ hours; Refrigerated: 14~~7~~ days; Frozen: 8 months (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Qualitative Immunoassay
Note:	The fourth-generation screen test is for the simultaneous qualitative detection of human immunodeficiency virus type 1 (HIV-1) p24 antigen and antibodies to HIV type 1 (HIV-1 groups M and O) and HIV type 2 (HIV-2). Results of the screen cannot be used to distinguish between the presence of HIV-1 p24 antigen, HIV-1 antibody, or HIV-2 antibody. The reflexed HIV-1/ HIV-2 antibody differentiation test discriminates between HIV-1 and HIV-2 antibodies. Results for each type are reported. If the HIV-1,2 combo antigen/antibody screen is repeatedly reactive, then the HIV-1/ HIV-2 antibody differentiation test will be performed. Additional charges apply. A recommendation to order further testing on a separate specimen for HIV-1/HIV-2 nucleic acid will be made for certain results. This multitest algorithm is recommended by the Centers for Disease Control and Prevention (CDC) and was adopted by the Clinical Laboratory Standards Institute (CLSI) for the diagnosis of HIV.
CPT Codes:	87389; if reflexed, add 86701; 86702
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
This test should not be used for blood donor screening, associated reentry protocols, or for	

screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	HIV 1,2 Combo Antigen/Antibody	Negative

TEST CHANGE

A1 Antigen Typing, Patient

2013502, A1 AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA~~Pink (K2 EDTA~~)
Specimen Preparation:	
Transport Temperature:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination~~Hemagglutination~~
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to~~By~~ report~~.~~	

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Effective Date: October 19, 2026

TEST CHANGE

Cw Antigen Typing, Patient

2013504, CW AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pPink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination~~Hemagglutination (HA)~~
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
	Refer to report

Inserted Cells

TEST CHANGE

Sd(a) Antigen Typing, Patient

2013506, SDA AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pPink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable ; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative AgglutinationHemagglutination
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer toBy report.	

TEST CHANGE

Wr(a) Antigen Typing, Patient

2013508, WRA AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pPink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative AgglutinationHemagglutination
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to reportBy Report	

TEST CHANGE

Kp(a)~~Kpa~~ Pt Antigen Typing IRL

2013690, P-KPA_IRL

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA ~~K2 EDTA~~) or p~~P~~ink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood (Min: 1 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 Week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination~~Hemagglutination~~
Note:	
CPT Codes:	86905
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report~~By Report~~	

TEST CHANGE

Hepatitis B Virus (HBV) Perinatal Exposure Follow-up by CIA, Panel

2014285, HBV PAN PN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3 mL serum or plasma to an ARUP standard transport tube. (Min: 1.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours~~Unacceptable~~; Refrigerated: 14 days~~1 week~~; Frozen: 30 days~~Indefinitely~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Quantitative Chemiluminescent Immunoassay (CLIA)
Note:	Performed and Reported times indicated are for screening of Hepatitis B Surface Antigen with~~Ag w/~~ Reflex to Confirmation~~Conf~~ and Hepatitis B Virus Surface Antibody. If results for Hepatitis B Surface Antigen with~~Ag w/~~ Reflex to Confirmation~~Conf~~ screen is repeatedly reactive with an index value between 1.00 and 50.00, then Hepatitis B Virus Surface Antigen, Confirmation~~Ag, Confirm~~ will be added. Additional charges apply.
CPT Codes:	86706; 87340; if reflexed, add 87341
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

This panel of assays should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Component	Interpretation
Hepatitis B Virus Surface Antibody	Less than 10.00 IU/L: Negative Greater than or equal to 10.00 IU/L: Positive

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antibody	Negative
		~~Components~~ / ~~Reference Interval~~ / ~~Result~~ ~~Hepatitis B Surface Antibody~~ / ~~Less than 10.00 IU/L~~ / ~~Negative~~ ~~Hepatitis B Surface Antibody~~ / ~~Greater than or equal to 10.00 IU/L~~ / ~~Positive~~
	Hepatitis B Surface Antigen	Negative

TEST CHANGE

NPM1 Mutation Detection by RT-PCR, Quantitative

3000066, NPM1 QNT

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 53 mL). Separate specimens must be submitted when multiple tests are ordered.) Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood or Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Quantitative Reverse Transcription Polymerase Chain Reaction
Note:	
CPT Codes:	81310
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

FLT3 ITD and TKD Mutation Detection

3001161, FLT3-PCR

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA). Also acceptable: Whole blood in green (sodium heparin).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or frozen tissue. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Capillary Electrophoresis
Note:	
CPT Codes:	81245; 81246
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Cytokine Panel 13, Plasma

3002601, CYT13 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Additional specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520 x12; 83529
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.	
Reference Interval:	

Test Number	Components	Reference Interval
	Interferon gamma, Plasma	10.4 pg/mL or less
	Interleukin 1 beta, Plasma	7.4 pg/mL or less
	Interleukin 10, Plasma	5.3 pg/mL or less
	Interleukin 12, Plasma	4.7 pg/mL or less
	Interleukin 13, Plasma	5.3 pg/mL or less
	Interleukin 17, Plasma	2.2 pg/mL or less
	Interleukin 2 Receptor, Soluble, Plasma	266.5-1410.4 pg/mL
	Interleukin 2, Plasma	2.1 pg/mL or less
	Interleukin 4, Plasma	2.5 pg/ml or less
	Interleukin 5, Plasma	2.1 pg/mL or less
	Interleukin 6, Plasma	2.5 pg/mL or less
	Interleukin 8, Plasma	9.4 pg/mL or less
	Tumor Necrosis Factor - alpha, Plasma	14.5 pg/mL or less

TEST CHANGE

Cytokine Panel, Monokines, Plasma

3002616, CYT MON P

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube~~Standard Transport Tube~~.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520 x3; 83529
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 1 beta, Plasma	7.4 pg/mL or less
	Interleukin 6, Plasma	2.5 pg/mL or less
	Interleukin 8, Plasma	9.4 pg/mL or less
	Tumor Necrosis Factor - alpha, Plasma	14.5 pg/mL or less

TEST CHANGE

Cytokine Panel, TH1, Plasma

3002617, CYT TH1 P

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520 x4
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interferon gamma, Plasma	10.4 pg/mL or less
	Interleukin 12, Plasma	4.7 pg/mL or less
	Interleukin 2 Receptor, Soluble, Plasma	266.5-1410.4 pg/mL
	Interleukin 2, Plasma	2.1 pg/mL or less

TEST CHANGE

Tumor Necrosis Factor - alpha, Plasma

3002618, TNFA PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Additional specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~14.5 pg/mL or less~~

Test Number	Components	Reference Interval
	Tumor Necrosis Factor - alpha, Plasma	14.5 pg/mL or less

TEST CHANGE

Interleukin 8, Plasma

3002619, IL8 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube~~Standard Transport Tube~~.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~9.4 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 8, Plasma	9.4 pg/mL or less

TEST CHANGE

Interleukin 6, Plasma

3002620, IL6 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube~~Standard Transport Tube~~.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83529
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.	
Reference Interval:	

~~2.5 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 6, Plasma	2.5 pg/mL or less

TEST CHANGE

Interleukin 5, Plasma

3002621, IL5 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship sample in ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~2.1 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 5, Plasma	2.1 pg/mL or less

TEST CHANGE

Interleukin 4, Plasma

3002622, IL4 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~2.5 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 4, Plasma	2.5 pg/ml or less

TEST CHANGE

Interleukin 10, Plasma

3002623, IL10 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~5.3 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 10, Plasma	5.3 pg/mL or less

TEST CHANGE

Interleukin 12, Plasma

3002624, IL12 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube~~Standard Transport Tube~~.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~4.7 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 12, Plasma	4.7 pg/mL or less

TEST CHANGE

Interleukin 13, Plasma

3002625, IL13 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube~~Standard Transport Tube~~.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~5.3 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 13, Plasma	5.3 pg/mL or less

TEST CHANGE

Interleukin 17, Plasma

3002626, IL17 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin~~Lithium Heparin~~).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship sample in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~2.2 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 17, Plasma	2.2 pg/mL or less

TEST CHANGE

Cytokine Panel, TH2, Plasma

3002627, CYT TH2 P

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in ARUP standard transport tube~~Standard Transport Tube~~.
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520 x4
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interleukin 10, Plasma	5.3 pg/mL or less
	Interleukin 13, Plasma	5.3 pg/mL or less
	Interleukin 4, Plasma	2.5 pg/ml or less
	Interleukin 5, Plasma	2.1 pg/mL or less

TEST CHANGE

Interferon gamma, Plasma

3002628, IFNG PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~10.4 pg/mL or less~~

Test Number	Components	Reference Interval
	Interferon gamma, Plasma	10.4 pg/mL or less

TEST CHANGE

Interleukin 1 beta, Plasma

3002629, IL1B PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~7.4 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 1 beta, Plasma	7.4 pg/mL or less

TEST CHANGE

Interleukin 2, Plasma

3002630, IL2 PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~2.1 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 2, Plasma	2.1 pg/mL or less

TEST CHANGE

Interleukin 2 Receptor, Soluble, Plasma

3002631, IL2R PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (lithium heparin).
Specimen Preparation:	CRITICAL FROZEN: Separate plasma from cells ~~ASAP or~~ within 2 hours of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze plasma within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

Reference Interval:

~~266.5 pg/mL - 1410.4 pg/mL~~

Test Number	Components	Reference Interval
	Interleukin 2 Receptor, Soluble, Plasma	266.5-1410.4 pg/mL

TEST CHANGE

KIT (D816V) Mutation by ddPCR, Quantitative

3002956, KITD816V Q

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA) preferred. Also acceptable: Green (sodium heparin)
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA or sodium heparin. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Droplet Digital PCR (ddPCR)
Note:	
CPT Codes:	81273
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Hepatitis Panel, Acute with Reflex to HBsAg Confirmation and Reflex to HCV by Quantitative NAAT

3002989, HEPACUTEQR

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST), lavender (EDTA)~~.)~~ or pink (K2EDTA).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 3.0 mL serum or plasma to an ARUP standard transport tube (Min: 2.5 mL). This test requires a dedicated transport tube submitted only for HEPACUTEQR testing.
Transport Temperature:	Frozen.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24~~12~~ hours; Refrigerated: 6 days; Frozen: 30 days~~2 months~~ (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Quantitative Polymerase Chain Reaction (PCR)
Note:	Order this panel when the patient has had clinical acute hepatitis of unknown origin for less than six months. If results for HBsAg are repeatedly reactive with an index value between 1.00 and 50.00, then HBsAg Confirmation will be added. If the anti-HCV IgG antibody result is positive, then Hepatitis C Virus (HCV) by Quantitative NAAT will be added. Additional charges apply.
CPT Codes:	80074; if reflexed, add 87341; 87522
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Component	Interpretation
Hepatitis C Antibody by CIA Interp	0.79 IV or less: Negative 0.80 to 0.99 IV: Equivocal 1.00 IV or greater: Positive

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis A Antibody, IgM	Negative
	Hepatitis B Core Antibody, IgM	Negative
	Hepatitis B Surface Antigen	Negative
	Hepatitis C Antibody by CIA Interp	Negative

TEST CHANGE

Deletion/Duplication Analysis by MLPA

3003144, DELDUP

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA), pink (K2EDTA), or yellow (ACD solution A or B)~~Contact ARUP's genetic counselor at 800-242-2787 ext. 5100 prior to test submission. A disease-specific patient history form is available at https://ltd.aruplab.com/api/ltd/pdf/104~~
Specimen Preparation:	Transport 2 mL whole blood. (Min: 1 mL)
Transport Temperature:	Refrigerated. Also acceptable: Ambient.
Unacceptable Conditions:	
Remarks:	Submission of a completed patient history form is required. If testing is ordered to assess for a large deletion/duplication previously identified in a family member, submission of the family member's laboratory report is required. Testing will begin once all required documentation is received.
Stability:	Room Temperature: 1 week; Refrigerated: 1 month; Frozen: Unacceptable.
Methodology:	Multiplex Ligation-Dependent Probe Amplification (MLPA)
Note:	Deletion/duplication analysis by MLPA is offered for the following genes: *F8, MLH1*, *MSH2, MSH6, SDHB, SDHC, SDHD, SHOX*
CPT Codes:	CPT codes vary based on gene.
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Cytokine Panel 13, CSF

3003259, CYT13 CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	CRITICAL FROZEN: Transfer 1 mL CSF to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze CSF within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Additional specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat inactivated specimens.
Remarks:	
Stability:	Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 month
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520 x12; 83529
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.

Reference Interval:

Test Number	Components	Reference Interval
	Interferon gamma, CSF	4.2 pg/mL or less
	Interleukin 1 beta, CSF	6.5 pg/mL or less
	Interleukin 10, CSF	12.7 pg/mL or less
	Interleukin 12, CSF	1.9 pg/mL or less
	Interleukin 13, CSF	7.3 pg/mL or less
	Interleukin 17, CSF	4.6 pg/mL or less
	Interleukin 2 Receptor, Soluble, CSF	26.8 pg/mL or less
	Interleukin 2, CSF	2.1 pg/mL or less
	Interleukin 4, CSF	5.2 pg/mL or less
	Interleukin 5, CSF	2.1 pg/mL or less
	Interleukin 6, CSF	7.5 pg/mL or less
	Interleukin 8, CSF	4.6 - 283.5 pg/mL
	Tumor Necrosis Factor - alpha, CSF	1.7 pg/mL or less

TEST CHANGE

Interleukin 6, CSF

3003260, IL6 CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	CRITICAL FROZEN: Transfer 1 mL CSF to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze CSF within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 month.
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83529
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

Reference Interval:

~~7.5 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 6, CSF	7.5 pg/mL or less

TEST CHANGE

Interleukin 2 Receptor, Soluble, CSF

3003261, IL2R CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	CRITICAL FROZEN: Transfer 1 mL CSF to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.4 mL) Freeze CSF within 30 minutes.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Ship in an ARUP standard transport tube.~~Standard Transport Tube.~~
Unacceptable Conditions:	Refrigerated specimens. Contaminated or heat-inactivated specimens.
Remarks:	
Stability:	Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 month
Methodology:	Quantitative Multiplex Bead Assay
Note:	Cytokine levels may demonstrate diurnal variation. For longitudinal comparison, it is recommended that cytokine levels be determined at the same time of day.
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Results are used to understand the pathophysiology of immune, infectious, or inflammatory disorders, or may be used for research purposes.

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

Reference Interval:

~~26.8 pg/mL or less~~

Test Number	Components	Reference Interval
	Interleukin 2 Receptor, Soluble, CSF	26.8 pg/mL or less

TEST CHANGE

JAK2 (V617F) Mutation by ddPCR, Quantitative

3003751, JAK2V617FQ

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA). Also acceptable: Whole blood in green (sodium heparin).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA or sodium heparin. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Droplet Digital PCR (ddPCR)
Note:	
CPT Codes:	81270
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

JAK2 (V617F) Mutation by ddPCR, Qualitative

3004046, JAK2 QUAL

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA). Also acceptable: Whole blood in green (sodium heparin).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Droplet Digital PCR (ddPCR)
Note:	
CPT Codes:	81270
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Hemophilia A (*F8*) 2 Inversions with Reflex to Sequencing and Reflex to Deletion/Duplication

3004232, F8-COMP

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender or pink (EDTA) or yellow (ACD solution A or B).
Specimen Preparation:	Transport 3 mL whole blood. (Min: 3 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Serum or plasma; grossly hemolyzed or frozen specimens. Saliva. Buccal brush or swab, FFPE tissue, DNA.
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Inverse Polymerase Chain Reaction / Massively Parallel Sequencing / Multiplex Ligation-Dependent Probe Amplification (MLPA)
Note:	*F8* inversion testing is performed on all specimens. If inversion testing does not explain the clinical scenario, then *F8* gene sequencing will be added. If sequencing does not explain the clinical scenario, then deletion/duplication testing will be added. Additional charges apply.
CPT Codes:	81403; if reflexed to NGS, add 81407; if reflexed to Del/Dup, add 81406
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	
Refer to report.	
Reference Interval:	
Refer to report	

HOTLINE NOTE: There is a component change associated with this test. One or more components have been added or removed. Refer to the Hotline Test Mix for interface build Information.

TEST CHANGE

Galactosemia (*GALT*) Sequencing and Deletion/Duplication

3004716, GALT NGS

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender or pink (EDTA) or yellow (ACD solution A or B). New York State Clients: Lavender (EDTA)
Specimen Preparation:	Transport 2~~3~~ mL whole blood. (Min: 1~~2~~ mL) New York State Clients: Transport 3 mL whole blood. (Min. 3 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Serum or plasma; grossly hemolyzed or frozen specimens; saliva, buccal brush, or swab; FFPE tissue.
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable New York State Clients: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: Unacceptable
Methodology:	Massively Parallel Sequencing
Note:	Gene Tested: *GALT* (NM_000155) When testing cord blood specimens, the presence of maternal cell contamination (MCC) is possible, which may impact result interpretation. If clinically warranted, testing for MCC is available, at a charge, through ARUP Laboratories.
CPT Codes:	81406; 81479
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	
Refer to report.	
Reference Interval:	
Refer to report	

TEST CHANGE

Hypoglycemia Panel (Sulfonylureas), Serum or Plasma

3005636, HYPO PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or gray (sodium fluoride/potassium oxalate)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.3 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Refrigerated
Unacceptable Conditions:	Polymer gel separation tube (SST or PST).
Remarks:	
Stability:	Ambient: 2 days; Refrigerated: 28 days; Frozen: 24 months
Methodology:	Qualitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Note:	
CPT Codes:	80377
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Refer to report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

Diagnostic Qualitative *BCR::ABL1* Assay with Reflex to p190 or p210 Quantitative Assays

3005839, DX BCR RFX

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole blood: Transport 5 mL whole blood. (Min: 53 mL). Separate specimens must be submitted when multiple tests are ordered.) Bone marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole blood and bone marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	This qualitative screening test is appropriate for initial diagnosis of chronic myeloid leukemia (CML) or acute lymphoblastic leukemia/lymphoma (ALL). For patients with a known history of p210 or p190 fusion transcripts, refer to Quantitative Detection of BCR::ABL1, Major Form (p210) (ARUP test code 3005840) or Quantitative Detection of BCR::ABL1, Minor Form (p190) (ARUP test code 3016968).
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Reverse Transcription Polymerase Chain Reaction
Note:	This reflex assay is recommended when the BCR::ABL1 fusion form is not known or unclear. This reflex assay detects the presence of either the p210 (major breakpoint), p190 (minor breakpoint), or p230 (micro breakpoint). If the presence of either the common p210 or p190 BCR::ABL1 fusion is detected, then the appropriate quantitative test will be performed. Additional charges apply. If the fusion form is known, refer to Quantitative Detection of BCR::ABL1, Major Form (p210) (ARUP test code 3005840) or

	Quantitative Detection of BCR::ABL1, Minor Form (p190) (ARUP test code 3016968).
CPT Codes:	81206; 81207; 81208; If reflexed, add 81206 or 81207
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Quantitative Detection of BCR::ABL1, Major Form (p210)

3005840, QNT BCRMAJ

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole blood: Transport 5 mL whole blood. (Min: 5~~3~~ mL). Separate whole blood specimens must be submitted when multiple tests are ordered. ~~)~~ Bone marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole blood and bone marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	This quantitative test is recommended for therapeutic monitoring and detection of minimal residual disease for patients with an established diagnosis. For patients with uncertain diagnoses or unknown forms of BCR::ABL1 fusion transcripts, please order Diagnostic Qualitative BCR::ABL1 Assay with Reflex to p190 or p210 Quantitative Assays (ARUP test code 3005839).
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Reverse Transcription Polymerase Chain Reaction
Note:	This test does not detect the BCR::ABL1 micro (p230) or minor (p190) fusion transcripts. This test does not detect rare BCR::ABL1 major (p210) forms involving beyond ABL1 exon 2. For the p190 fusion form (minor breakpoint), order BCR::ABL1, Minor (p190), Quantitative (ARUP test code 2005016).
CPT Codes:	81206
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	

Reference Interval:

TEST CHANGE

Aldosterone and Renin Direct, With Ratio

3005949, ALD/DR

Specimen Requirements:	
Patient Preparation:	Blood should be obtained in seated position in the morning without venous stasis (release tourniquet after venipuncture and wait at least 5 seconds before withdrawing blood). If the patient is supine, ensure that the patient is in this position for at least 30 minutes prior to collection.
Collect:	Serum separator tube (SST) AND lavender (EDTA). Do not collect in refrigerated tubes nor store tubes on ice.
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Serum: Transfer 1 mL serum to an ARUP standard transport tube (Min: 0.5mL) AND Plasma: Transfer 2 mL EDTA plasma to an ARUP standard transport tube and freeze immediately. (Min: 1 mL) Storage at refrigerated temperatures may cause falsely elevated results. Do not collect in refrigerated tubes. Process blood at room temperature and centrifuge tubes in a nonrefrigerated centrifuge.
Transport Temperature:	Both specimens should be collected and submitted together for testing. Serum: Frozen. Also acceptable: Refrigerated. Plasma: CRITICAL FROZEN. Separate specimens must be submitted when additional tests are ordered.
Unacceptable Conditions:	Refrigerated plasma or plasma collected in citrate, heparin, or oxalate. Grossly hemolyzed specimens.
Remarks:	
Stability:	Serum: Ambient: 8 hours; Refrigerated: 5 days; Frozen: 1 month Plasma: Ambient: 8 hours; Refrigerated: Unacceptable; Frozen: 1 month
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	Do not use this test for patients treated with cathepsin B. Menstruating females and those taking estrogen containing medications may have lower renin direct concentrations, resulting in falsely high aldosterone-renin ratio (ARR). In these cases, order Aldosterone/Renin Activity Ratio (ARUP test code 0070073). Refer to the Additional Technical Information for Endocrine Society recommendations for patient preparation, specimen collection, medications for hypertension control during confirmatory testing for primary aldosteronism, and factors that may lead to false-positive or false-negative ARR results.
CPT Codes:	Refer to Aldosterone (0070015) and Renin, Direct (2001575)

New York DOH Approval Status: This test is New York DOH approved.

Interpretive Data:

Normal serum levels of aldosterone are dependent on the sodium intake and whether the patient is upright or supine. High sodium intake will tend to suppress serum aldosterone, whereas low sodium intake will elevate serum aldosterone. The reference intervals for serum aldosterone are based on normal sodium intake.

Reference Interval:

Test Number	Components	Reference Interval
	Aldosterone/Direct Renin Calculation	Less than or equal to 4.0

HOTLINE NOTE: There is a numeric map change associated with this test. Refer to the Hotline Test Mix for interface build information.

TEST CHANGE

C5 Inhibitors Drug Monitoring Panel

3005961, C5 INH PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 2.0 mL serum to an ARUP standard transport tube and freeze immediately. (Min: 2.0 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Specimens received refrigerated, ambient, lipemic specimens, or grossly hemolyzed specimens. Serum separator tubes. Specimens collected using calcium-binding anticoagulants (i.e., EDTA, ACD).
Remarks:	
Stability:	Refer to individual components.
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Quantitative Radial Immunodiffusion / Quantitative Immunoturbidimetry
Note:	
CPT Codes:	86160; 86161 x2; 86162
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Component	Interpretation
Complement Activity, Total Turbidimetric	Low: 38.6 U/mL or less Normal: 38.7-89.9 U/mL High: 90.0 U/mL or greater
Complement C5, Functional	Low: 22.9 U/mL or less Low-Normal: 23.0-28.3 U/mL Normal: 28.4 U/mL or greater
Complement Activity, Alternative Pathway	See report
C5 Inhibitors Drug Monitoring Pan Interp	Patients treated with C5 inhibitors may show decreased/absent activity in total complement

	functional assay (CH50), alternative pathway functional assay (AH50), and C5 functional assay with normal or elevated C5 protein concentrations. Normal CH50, AH50, or C5 functional activity with normal or elevated C5 protein concentrations indicate inadequate complement blockage. Serial measurements are recommended when monitoring treatment efficacy. Decreases in both C5 concentration and C5 functional activity suggests a secondary consumption process or C5 deficiency. Repeat testing using a new specimen is suggested if in vitro complement activation and consumption of components due to conditions of collection, transport, and/or handling is suspected.	

Reference Interval:

Test Number	Components	Reference Interval
	Complement Activity, Total Turbidimetric	38.7-89.9 U/mL
	Complement C5, Concentration	92.7-179.7 mg/L
	Complement C5, Functional	23.0 U/mL or greater
	~~Complement Component 5~~	~~7-20 mg/dL~~

TEST CHANGE

Autoimmune Encephalopathy/Dementia Panel, Serum

3006201, AIENCDEMS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three~~ 1 mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If IgLON5 antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.

CPT Codes:	86341; 84182 x3; 86255 x10; if reflexed, add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report

Reference Interval:

Test Number	Components	Reference Interval
	AMPA Receptor Ab IgG CBA-IFA Scrn, Serum	Less than 1:10
	CASPR2 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	GABA-BR Ab IgG CBA-IFA Scrn, Ser	Less than 1:10
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	IgLON5 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	LGI1 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Ma2/Ta Antibody, IgG by Immunoblot, Ser	Negative
	mGluR1 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	Neuronal Antibody (Amphiphysin)	Negative
	NMDA Receptor Ab IgG CBA-IFA, Serum	Less than 1:10
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected
	SOX1 Antibody, IgG by Immunoblot, Serum	Negative

TEST CHANGE

Autoimmune Dysautonomia and Gastrointestinal Dysmotility Panel, Serum

3006203, AIDYS

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three 1~~ mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 14 days; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Radioimmunoassay (RIA) / Qualitative Immunoblot
Note:	PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu) IgG by Immunoblot will be performed. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	83519; 86255 x5; if reflexed add 84182; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Refer to report

Component	Interpretation
Ganglionic Acetylcholine Receptor Antibody	0.0-8.4 pmol/L: Negative 8.5-11.6 pmol/L: Indeterminate 11.7 pmol/L or greater: Positive

Reference Interval:

Test Number	Components	Reference Interval
	CASPR2 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Ganglionic Acetylcholine Receptor Ab	8.4 pmol/L or less
	LGI1 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected

TEST CHANGE

Autoimmune Epilepsy Panel, Serum

3006204, AIEPS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three~~ 1 mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-AR antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.

CPT Codes:	86341; 84182 x3; 86255 x10; if reflexed, add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report

Reference Interval:

Test Number	Components	Reference Interval
	AMPA Receptor Ab IgG CBA-IFA Scrn, Serum	Less than 1:10
	CASPR2 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	GABA-AR Ab IgG CBA IFA Screen, Serum	Less than 1:10
	GABA-BR Ab IgG CBA-IFA Scrn, Ser	Less than 1:10
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	LGI1 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Ma2/Ta Antibody, IgG by Immunoblot, Ser	Negative
	mGluR1 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	Neuronal Antibody (Amphiphysin)	Negative
	NMDA Receptor Ab IgG CBA-IFA, Serum	Less than 1:10
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected
	SOX1 Antibody, IgG by Immunoblot, Serum	Negative

TEST CHANGE

Autoimmune Myelopathy Panel, Serum

3006208, AIMYS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three~~ 1 mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If AQP4/NMO antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If MOG antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 86362; 86052; 84182 x2; 86255 x5; if reflexed add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Refer to report

Reference Interval:

Test Number	Components	Reference Interval
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	GABA-BR Ab IgG CBA-IFA Scrn, Ser	Less than 1:10
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	mGluR1 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	MOG Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Neuronal Antibody (Amphiphysin)	Negative
	NMO/AQP4 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected
	SOX1 Antibody, IgG by Immunoblot, Serum	Negative

TEST CHANGE

Autoimmune Pediatric CNS Disorders, Serum

3006210, AIPEDS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three~~ 1 mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu and Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AQP4/NMO antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If MOG antibody IgG by IFA is positive, then titer will be added. Additional charges apply.

	If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-AR antibody IgG by IFA is positive, then titer will be added. Additional charges apply If AMPA antibody IgG by IFA is positive, then titer will be added. Additional charges apply
CPT Codes:	86341; 86362; 86052; 86255 x9; if reflexed add 84182 x2; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Reference Interval:

Test Number	Components	Reference Interval
	AMPA Receptor Ab IgG CBA-IFA Scrn, Serum	Less than 1:10
	CASPR2 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	GABA-AR Ab IgG CBA IFA Screen, Serum	Less than 1:10
	GABA-BR Ab IgG CBA-IFA Scrn, Ser	Less than 1:10
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	LGI1 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	mGluR1 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	MOG Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	NMDA Receptor Ab IgG CBA-IFA, Serum	Less than 1:10
	NMO/AQP4 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected

TEST CHANGE

Autoimmune Stiff-Person Disorders, Serum

3006234, AISPSS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three 1~~ mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 84182; 86255; if reflexed, add 86256
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	

Reference Interval:

Test Number	Components	Reference Interval
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	Neuronal Antibody (Amphiphysin)	Negative

TEST CHANGE

JC Virus Antibody by ELISA, Serum with Reflex to Inhibition Assay

3006254, JCV AB

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube (SST). Also acceptable: Lavender (K2EDTA)
Specimen Preparation:	Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Room temperature or refrigerated.
Unacceptable Conditions:	
Remarks:	Clinical information is needed for appropriate interpretation. At order entry, indicate whether the patient is currently on natalizumab therapy.
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: 3 months
Methodology:	Enzyme-Linked Immunosorbent Assay (ELISA)
Note:	If antibody result is indeterminate, then a confirmation (inhibition) assay will be added.
CPT Codes:	86711; if reflexed, add 86711
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

By report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

HBV Exposure Panel

3016631, HBV EXP

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 3.00 mL serum to an ARUP standard transport tube. (Min: 1.750 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material or obvious microbial contamination. Heat-inactivated~~,~~ or severely hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48~~12~~ hours; Refrigerated: 14~~7~~ days; Frozen: 30 days (avoid repeated freeze/thaw cycles).
Methodology:	Quantitative Chemiluminescent Immunoassay (CLIA) / Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	The HBV core total assay tests for IgG and IgM antibodies, but does not differentiate between them. HBsAb results greater than 1,000.00 IU/L are reported as greater than 1,000.00 IU/L If results for HBsAg screen are repeatedly reactive with an index value between 1.00 and 50.00, then HBsAg Confirmation will be added. Additional charges apply.
CPT Codes:	86706; 86704; 87340; if reflexed, add 87341
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Core Antibodies, Total	Negative
	Hepatitis B Surface Antibody	Negative
		~~Components~~ / ~~Reference Interval~~ / ~~Result~~ ~~Hepatitis B Surface Antibody~~ / ~~Less than 10.00 IU/L~~ / ~~Negative~~ ~~Hepatitis B Surface Antibody~~ / ~~Greater than or equal to 10.00 IU/L~~ / ~~Positive~~

	Hepatitis B Surface Antigen	Negative

TEST CHANGE

Gastric Pepsin A, Respiratory

3016813, PEPSIN

Specimen Requirements:	
Patient Preparation:	
Collect:	Bronchial wash, broncheoalveolar lavage (BAL), or tracheal aspirate.
Specimen Preparation:	Transfer 2 mL respiratory specimen to an ARUP standard transport tube and freeze immediately. (Min: 0.5 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 3 months
Methodology:	Semi-Quantitative Enzymatic Assay
Note:	
CPT Codes:	83986; 84157; 82657
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	

Reference Interval:

Refer to report

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

JAK2 (V617F) Mutation by ddPCR, Qualitative With Reflex to CALR (Calreticulin) Exon 9 Mutation Analysis by PCR and MPL Mutation Detection

3016839, ETPMFRFX

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Droplet Digital PCR (ddPCR) / Capillary Electrophoresis
Note:	If JAK2 qualitative is reported as "Not Detected," then CALR Exon 9 Mutation Analysis by PCR and MPL Mutation Detection will be added. Additional charges apply.
CPT Codes:	81270; if reflexed add 81219 and 81338
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

JAK2 (V617F) Mutation by ddPCR, Qualitative With Reflex to JAK2 Exon 12-Mutation Analysis by PCR

3016840, PV REFLEX

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Droplet Digital PCR (ddPCR)
Note:	If JAK2 qualitative is reported as "Not Detected," then JAK2 Exon 12- Mutation Analysis by PCR will be added. Additional charges apply.
CPT Codes:	81270; if reflexed, add 81279
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Quantitative Detection of *BCR::ABL1*, Minor Form (p190)

3016968, QNT BCRMIN

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 5~~3~~ mL). Separate whole blood specimens must be submitted when multiple tests are ordered. ~~)~~ Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood or Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Quantitative Reverse Transcription Polymerase Chain Reaction
Note:	For p210 fusion form (major breakpoint), order BCR::ABL1, Major (p210), Quantitative (ARUP test code 3005840).
CPT Codes:	81207
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

TPSAB1 Copy Number Analysis by ddPCR

3017399, TPSAB1

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA) preferred. Also acceptable: Green (sodium heparin)
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or fresh or frozen tissue. Specimens collected in anticoagulants other than EDTA (purple) or sodium heparin (green). Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Droplet Digital PCR (ddPCR)
Note:	
CPT Codes:	81479
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

RBC Antibody ID Package (IRL)

3017610, IRL AB PKG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA) AND plain red.
Specimen Preparation:	Do not freeze. Transport 10 mL whole blood (plain red) AND 20 mL whole blood (EDTA). (Min: 7 mL plain red AND 10 mL EDTA).
Transport Temperature:	Refrigerated. Deliver to lab immediately.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Hemagglutination (HA) / Qualitative Solid Phase Red Cell Adherence
Note:	Includes: ABO/Rh type, direct Coombs, RBC antibody identification, by various methods. Red blood cell antigen testing will be added as indicated. Depending on antibody complexity, additional testing may be required. Additional charges apply. Client must provide patient transfusion history.
CPT Codes:	86900; 86901; 86880; 86870 x3; additional CPT codes may apply
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Refer to report

HOTLINE NOTE: There is a reflexive pattern change associated with this test. One or more components have been added or removed to the reflexive pattern. Refer to the Hotline Test Mix for interface build Information.

TEST CHANGE

RBC Antibody ID Prenatal - Reflex to Titer

3017611, IRL ABID

Specimen Requirements:	
Patient Preparation:	
Collect:	3 (7mL) lavender (K2EDTA) or pink (K2EDTA) AND 1 (7mL) plain red.
Specimen Preparation:	Do not freeze. Transport 3 (7 mL) whole blood EDTA AND 1 (7 mL) whole blood plain red. (Min: 10 mL EDTA and 3 mL plain red)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Hemagglutination (HA) / Qualitative Solid Phase Red Cell Adherence
Note:	This test is for prenatal patients only. Includes: ABO/Rh type, direct Coombs, RBC antibody identification by one method. Titers will be performed, at an additional charge, on prenatal specimens for clinically significant antibodies. Red blood cell antigen testing will be added as indicated. Depending on antibody complexity, additional testing may be required. Additional charges apply.
CPT Codes:	86900; 86901; 86880; 86870; additional CPT codes may apply
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

HOTLINE NOTE: There is a reflexive pattern change associated with this test. One or more components have been added or removed to the reflexive pattern. Refer to the Hotline Test Mix for interface build Information.

NEW TEST

Click for Pricing

Allergen, Food, Hazelnut Components IgE

3018640, HZLNUT COM

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.7 mL serum to an ARUP standard transport tube. (Min: 0.4 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at www.aruplab.com/testing/resources/specimen.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples; FROZEN samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: UNACCEPTABLE
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Note:	
CPT Codes:	86008 x4
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Allergen results of 0.10-0.34 kU/L are intended for specialist use as the clinical relevance is undetermined. Even though increasing ranges are reflective of increasing concentrations of allergen-specific IgE, these concentrations may not correlate with the degree of clinical response or skin testing results when challenged with a specific allergen. The correlation of allergy laboratory results with clinical history and in vivo reactivity to specific allergens is essential. A negative test may not rule out clinical allergy or even anaphylaxis.

Reporting Range (reported in kU/L)	Probability of IgE Mediated Clinical Reaction	Class Scoring
Less than 0.10	No significant level detected	0
0.10-0.34	Clinical relevance undetermined	0/1
0.35-0.70	Low	1
0.71-3.50	Moderate	2
3.51-17.50	High	3
17.51-50.00	Very High	4
50.01-100.00	Very High	5
Greater than 100.00	Very High	6

Reference Interval:

Test Number	Components	Reference Interval
	Allergen,Hazelnut Component, Cor a1, IgE	Less than or equal to 0.09 kU/L
	Allergen,Hazelnut Component, Cor a14,IgE	Less than or equal to 0.09 kU/L
	Allergen,Hazelnut Component, Cor a8, IgE	Less than or equal to 0.09 kU/L
	Allergen,Hazelnut Component, Cor a9, IgE	Less than or equal to 0.09 kU/L

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

TEST CHANGE

Hepatitis B Virus Surface Antigen With Reflex to Confirmation and Reflex to Hepatitis Delta Virus Antibody by ELISA With Reflex to Hepatitis Delta Virus by Quantitative PCR

3018776, HBSAGRDABQ

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 3 mL serum to an ARUP standard transport tube. (Min: 2 mL). This test requires a dedicated transport tube submitted only for HBSAGRDABQ testing. Separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen
Unacceptable Conditions:	Specimens containing particulate material or obvious microbial contamination. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 5 days; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Qualitative Enzyme Immunoassay (EIA)
Note:	Performed and Reported times indicated are for screening of the HBsAg. If results for HBsAg screen are repeatedly reactive with an index value between 1.00 and 50.00, then HBsAg Confirmation will be added. If positive for hepatitis B surface antigen, Hepatitis Delta Virus Antibody by ELISA With Reflex to Hepatitis Delta Virus by Quantitative PCR (ARUP test code 3006379) will be added. If the anti-HDV screening result is positive or equivocal, Hepatitis Delta Virus by Quantitative PCR (ARUP test code 2013881) will be added. Performed and Reported times are for the antibody screening portion of this test. Refer to Hepatitis Delta Virus by Quantitative PCR regarding additional information regarding Performed and Reported times for the reflex portion of the test. Additional charges apply each time a reflexive test is indicated and added.
CPT Codes:	87340; if reflexed, add 87341; 86692; 87523
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

This panel of assays should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antigen	Negative

TEST CHANGE

PML::*RARA* Detection by RT-PCR, Quantitative

3018922, PMLQNT

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Transport 10~~5~~ mL whole blood. (Min: 10~~3~~ mL). Separate specimens must be submitted when multiple tests are ordered. ~~)~~ Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood and Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens received >7 days post collection will be canceled. Refrigerated whole blood or bone marrow specimens received >7 days post collection will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Quantitative Reverse Transcription Polymerase Chain Reaction
Note:	
CPT Codes:	81315
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data: Refer to report.	
Reference Interval: Refer to report	

TEST CHANGE

HBV Prenatal Triple Panel

3018943, HBV TRI PN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 3.00 mL serum to an ARUP standard transport tube. (Min: 1.750 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Heparinized plasma. Specimens containing particulate material or obvious microbial contamination. Heat-inactivated or severely hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48~~12~~ hours; Refrigerated: 14~~7~~ days; Frozen: 30 days (avoid repeated freeze/thaw cycles).
Methodology:	Quantitative Chemiluminescent Immunoassay (CLIA) / Qualitative Chemiluminescent Immunoassay (CLIA)
Note:	The HBV core total assay tests for IgG and IgM antibodies, but does not differentiate between them. HBsAb results greater than 1,000.00 IU/L are reported as greater than 1,000.00 IU/L. If results for HBsAg screen are reactive (=1.0), then HBsAg Confirmation, Prenatal will be added. Additional charges apply.
CPT Codes:	86706; 86704; 87340; if reflexed, add 87341
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Core Antibodies, Total	Negative
	Hepatitis B Surface Antibody	Negative
		~~Components~~ / ~~Reference Interval~~ / ~~Result~~ ~~Hepatitis B Surface Antibody~~ / ~~Less than 10.00 IU/L~~ / ~~Negative~~ ~~Hepatitis B Surface Antibody~~ / ~~Greater than or equal to 10.00 IU/L~~ / ~~Positive~~
	Hepatitis B Surface Antigen, Prenatal	Negative

TEST CHANGE

Autoimmune Movement Disorder Panel, Serum

3018964, AIMDS2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3~~three 1~~ mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~0~~.5 mL~~/aliquot~~)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Quantitative Radioimmunoassay (RIA)
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If PCCA is detected, ITPR1 antibody IgG will be added and if positive, then titer will be added. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If AMPA antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG is positive, then titer will be added. Additional charges apply.

	If GABA-AR antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If IgLON5 antibody IgG by IFA is positive, then titer will be added. Additional charges apply If KLHL11 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 86596; 84182 x3; 86255 x12; if reflexed add 84182 x4; 86255; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Component	Interpretation
P/Q-Type Voltage-Gated Calcium Channel (VGCC) Antibody	0.0-24.5 pmol/L Negative 24.6-45.6 pmol/L Indeterminate 45.7 pmol/L or greater Positive

Reference Interval:

Test Number	Components	Reference Interval
	AMPA Receptor Ab IgG CBA-IFA Scrn, Serum	Less than 1:10
	CASPR2 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	GABA-AR Ab IgG CBA IFA Screen, Serum	Less than 1:10
	GABA-BR Ab IgG CBA-IFA Scrn, Ser	Less than 1:10
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	IgLON5 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	KLHL11 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	LGI1 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Ma2/Ta Antibody, IgG by Immunoblot, Ser	Negative
	mGluR1 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	Neuronal Antibody (Amphiphysin)	Negative
	NMDA Receptor Ab IgG CBA-IFA, Serum	Less than 1:10
	P/Q-Type Calcium Channel Antibody	24.5 pmol/L or less
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected
	SOX1 Antibody, IgG by Immunoblot, Serum	Negative

TEST CHANGE

Autoimmune Neurologic Disease Panel With Reflex, Serum

3018965, NEURO R5

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 4~~four 1~~ mL serum ~~aliquots~~ to ARUP standard transport tube~~s~~. (Min: 2.8 mL)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, grossly hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (Three freeze/thaw cycles are acceptable)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Qualitative Immunoblot / Quantitative Radioimmunoassay (RIA) / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Note:	If N-methyl-D-Aspartate Receptor Antibody is positive, then titer will be performed. Additional charges apply. If CV2 Antibody IgG Screen by IFA is positive, then titer will be performed, and Acetylcholine Receptor Binding Antibody will be added. Additional charges apply. If AQP4 antibody IgG is positive, then titer will be added. Additional charges apply. If PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If PCCA is detected, ITPR1 antibody IgG will be added and if positive, then titer will be added. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AMPAR antibody IgG is positive, then titer will be added. Additional charges apply.

	If GABA-BR antibody IgG is positive, then titer will be added. Additional charges apply. If MOG antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG is positive, then titer will be added. Additional charges apply. If IgLON5 antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-AR antibody IgG is positive, then titer will be added. Additional charges apply. If mGLUR1 antibody IgG is positive, then titer will be added. Additional charges apply. If KLHL11 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	83519 x2; 84182 x3; 86255 x12; 86341; 86052; 86362; 86596; if reflexed, add 86255; 84182 x4; 86041; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to Report

Component	Interpretation
Voltage-Gated Potassium Channel (VGKC) Antibody, Serum	31 pmol/L or less: Negative 32-87 pmol/L: Indeterminate 88 pmol/L or greater: Positive
P/Q-Type Voltage-Gated Calcium Channel (VGCC) Antibody	0.0 to 24.5 pmol/L: Negative 24.6 to 45.6 pmol/L: Indeterminate 45.7 pmol/L or greater: Positive
Ganglionic Acetylcholine Receptor Antibody	0.0 to 8.4 pmol/L: Negative 8.5 to 11.6 pmol/L: Indeterminate 11.7 pmol/L or greater: Positive

Reference Interval:

Test Number	Components	Reference Interval
	AMPA Receptor Ab IgG CBA-IFA Scrn, Serum	Less than 1:10
	CASPR2 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	DPPX Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	GABA-AR Ab IgG CBA IFA Screen, Serum	Less than 1:10
	GABA-BR Ab IgG CBA-IFA Scrn, Ser	Less than 1:10
	Ganglionic Acetylcholine Receptor Ab	8.4 pmol/L or less
	Glutamic Acid Decarboxylase Antibody	0.0-5.0 IU/mL
	IgLON5 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	KLHL11 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	LGI1 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Ma2/Ta Antibody, IgG by Immunoblot, Ser	Negative
	mGluR1 Ab IgG CBA IFA Screen, Serum	Less than 1:10
	MOG Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	Neuronal Antibody (Amphiphysin)	Negative
	NMDA Receptor Ab IgG CBA-IFA, Serum	Less than 1:10
	NMO/AQP4 Ab IgG CBA-IFA Screen, Serum	Less than 1:10
	P/Q-Type Calcium Channel Antibody	24.5 pmol/L or less
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected
	SOX1 Antibody, IgG by Immunoblot, Serum	Negative
	Voltage-Gated Potassium Channel Ab, Ser	31 pmol/L or less

TEST CHANGE

Ammonia Level, Plasma

3019004, AMMON PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Plasma preparation tube (PPT). Also acceptable: Lavender (K2EDTA)
Specimen Preparation:	Separate plasma from cells and transfer 2 mL to an ARUP standard transport tube (Min: 2 mL), freeze immediately. Also acceptable: If submitting in original plasma preparation tube (PPT), centrifuge and freeze immediately. Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 1 week
Methodology:	Enzyme Immunoassay (EIA)
Note:	
CPT Codes:	82140
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

HOTLINE NOTE: There is a price change associated with this test. Please contact ARUP Client Services at (800) 522-2787 for additional information.

TEST CHANGE

Viral Hepatitis Prenatal Panel

3019856, VPRENATHEP

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3.5 mL serum or plasma to an ARUP standard transport tube (Min: 3.0 mL). This test requires a dedicated transport tube submitted only for VPRENATHEP testing.
Transport Temperature:	Frozen
Unacceptable Conditions:	Specimen: Body fluids other than serum or plasma. Condition: Heparinized plasma. Specimens containing particulate material or obvious microbial contamination. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 6 days; Frozen: 30 days~~2 months~~ (avoid freeze/thaw cycles).
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Quantitative Polymerase Chain Reaction (PCR)
Note:	Order this test only for prenatal specimens. If results for HBsAg screen are reactive (=1.0), then HBsAg Confirmation, Prenatal will be added. Additional charges apply. If the anti-HCV IgG antibody result is positive, the Hepatitis C Virus (HCV) by Quantitative NAAT will be added. Additional charges apply. For HBsAb, results greater than 1,000.00 IU/L are reported as greater than 1,000.00 IU/L. The HBcAb assay tests for IgG and IgM antibodies, but does not differentiate between them. This test requires a dedicated transport tube submitted only for VPRENATHEP testing.
CPT Codes:	87340; 86803; 86706; 86704; if reflexed, add 87341; 87522
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

This test should not be used for blood donor screening, associated reentry protocols, or for screening human cells, tissues, and cellular- and tissue-based products (HCT/P).

Test Number	Components	Reference Interval
0020099	Hepatitis C Antibody by CIA Index	0.79 IV or less: Negative 0.80 to 0.99 IV: Equivocal 1.00 IV or greater: Positive
0020090	Hepatitis B Surface Antibody	Less than 10.00 IU/L: Negative Greater than or equal to 10.00 IU/L: Positive

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Core Antibodies, Total	Negative
	Hepatitis B Surface Antibody	Negative
	Hepatitis B Surface Antigen, Prenatal	Negative
	Hepatitis C Antibody by CIA Interp	Negative

TEST CHANGE

Beta Globin (HBB) Deletion/Duplication by MLPA

3019876, BG DELDUP

Specimen Requirements:	
Patient Preparation:	Transport 2 mL whole blood. (Min: 1 mL)
Collect:	Lavender (EDTA), pink (K2EDTA), or yellow (ACD solution A or B)
Specimen Preparation:	Transport 2 mL whole blood. (Min: 1 mL)
Transport Temperature:	Refrigerated. Also acceptable: Ambient.
Unacceptable Conditions:	Saliva, buccal swab, FFPE tissue, ~~fresh/~~frozen tissue.
Remarks:	
Stability:	Room Temperature: 1 week; Refrigerated: 1 month; Frozen: Unacceptable
Methodology:	Multiplex Ligation-Dependent Probe Amplification (MLPA) / Capillary Electrophoresis
Note:	
CPT Codes:	81363
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

JAK2 Exon 12-Mutation Analysis by PCR

3020079, JAK2EX12

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA) or pink (K2EDTA).
Specimen Preparation:	Whole Blood: Do not freeze. Transport 5 mL whole blood. (Min: 1 mL) Bone Marrow: Do not freeze. Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Plasma, serum, FFPE tissue blocks/slides, or frozen tissue. Specimens collected in anticoagulants other than EDTA. Clotted or grossly hemolyzed specimens.
Remarks:	
Stability:	Refrigerated: 7 days; Frozen: Unacceptable
Methodology:	Polymerase Chain Reaction (PCR)
Note:	
CPT Codes:	81279
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data: Refer to report.	
Reference Interval:	

NEW TEST

Click for Pricing

CBFB::MYH11 inv(16) Detection, Quantitative

3020269, INV16 QNT

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA) or bone marrow (EDTA), pink (K2EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 5 mL). Separate specimens must be submitted when multiple tests are ordered. Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood or Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Quantitative Reverse Transcription Polymerase Chain Reaction
Note:	
CPT Codes:	81401
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

RUNX1::RUNX1T1 (*AML1::ETO*) t(8;21) Detection, Quantitative

3020274, RUNX1 QNT

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA), pink (K2EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 5 mL). Separate whole blood specimens must be submitted when multiple tests are ordered. Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood or Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Reverse Transcription Polymerase Chain Reaction
Note:	
CPT Codes:	81401
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data: Refer to report.	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

RNA Extraction and Storage

3020324, RNAEXT

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA), pink (K2EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 5 mL). Separate specimens must be submitted when multiple tests are ordered. Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL)
Transport Temperature:	Whole blood and bone marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	
Remarks:	Specimens must be received within 48 hours of collection due to lability of RNA.
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	RNA Extraction
Note:	RNA will be held for 6 months for possible add-on testing. Extracted RNA is used exclusively for ARUP testing and will not be sent back to clients or forwarded to vendor laboratories.
CPT Codes:	NA
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST – Available Now

Click for Pricing

SF-1 GYN by Immunohistochemistry

3020700, SF1GYN IHC

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue or cells
Specimen Preparation:	Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 2 slides). If sending precut slides, do not oven bake.
Transport Temperature:	Room temperature or refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Specimens submitted with nonrepresentative tissue type. Depleted specimens.
Remarks:	IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS : Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Immunohistochemistry (IHC)
Note:	This test is performed as a stain and return (technical) service only. This orderable is validated on gynecology specimens only. Please refer to 3020201 SF1 IHC for non-gynecological specimens.
CPT Codes:	88342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST – Available Now

Click for Pricing

Tropical Fever Panel by PCR

3020830, TFPPCR

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Minimum 0.5 ml human whole blood collected in EDTA tubes
Specimen Preparation:	Collect blood in EDTA blood tube
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Frozen
Remarks:	The panel detects and identifies selected bacterial, viral, and parasitic nucleic acids directly from EDTA whole blood collected from individuals with signs and/or symptoms of acute febrile illness or recent acute febrile illness and known or suspected exposure to the following target pathogens: chikungunya virus, dengue virus (serotypes 1, 2, 3 and 4), *Leptospira* spp., and *Plasmodium* spp. (including species differentiation of *Plasmodium falciparum* and *Plasmodium vivax/ovale*).
Stability:	Ambient: 24 hours Refrigerated: Up to 7 days
Methodology:	Qualitative Polymerase Chain Reaction (PCR)
Note:	This panel is not intended to be used as the sole basis for diagnosis, treatment, or other management decisions. Positive results do not rule out coinfection with other organisms not included on the panel, nor do negative results rule out infection. Negative results from the panel may require additional testing if clinically indicated. Not all pathogens that cause acute febrile illness are detected by this test, and negative results do not rule out the presence of other infections. Patient travel history, exposure risk, and consultation of the CDC Yellow Book should be considered prior to use of this panel as some pathogens are more common in certain geographical locations. A Plasmodium spp. "Detected" result does not provide parasitemia level information. The potential for severe malaria should be considered. A dengue virus "Detected" result does not provide information on the severity of the disease. The potential for hemorrhagic

	dengue fever should be considered. Performance of the test has not been established for monitoring treatment of malaria, dengue fever, chikungunya fever, or leptospirosis.
CPT Codes:	0595U
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST – Available Now

Click for Pricing

Immunoglobulin A (IgA) by Immunohistochemistry

3021115, IGAIHC

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue or cells.
Specimen Preparation:	Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 2 slides). If sending precut slides, do not oven bake.
Transport Temperature:	Room temperature or refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Specimens submitted with nonrepresentative tissue type. Depleted specimens.
Remarks:	IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS : Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Immunohistochemistry (IHC)
Note:	This test is performed as a stain and return only.
CPT Codes:	88342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

B-Cell Clonality Screening (IgH and IgK), Tissue, by PCR

3021139, BCELLTISS

Specimen Requirements:	
Patient Preparation:	
Collect:	Fresh tissue, formalin-fixed tumor tissue.
Specimen Preparation:	FFPE Tumor Tissue: Formalin-fixed (10 percent neutral buffered formalin) and paraffin-embedded tissue. Protect from excessive heat. Tissue block will be returned after testing. Transport tissue block or four 10-micron shavings in a tissue transport kit (ARUP Supply #47808) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.
Transport Temperature:	Fresh Tissue: Frozen on dry ice. FFPE Tumor Tissue: Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Tissue: FFPE specimens fixed in any fixative other than 10 percent neutral buffered formalin.
Remarks:	If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will be held until clarification is provided.
Stability:	Fresh Tissue: Ambient: Unacceptable; Refrigerated: 2 hours; Frozen: 1 year FFPE Tumor Tissue: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Capillary Electrophoresis / Qualitative Polymerase Chain Reaction (PCR)
Note:	
CPT Codes:	81261; 81264
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Reference Interval:

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

T-Cell Clonality Screening, Tissue, by PCR

3021140, TCELLTISS

Specimen Requirements:	
Patient Preparation:	
Collect:	Fresh tissue or formalin-fixed tumor tissue.
Specimen Preparation:	Fresh Tissue: Freeze immediately. Transport 100 mg or 0.5-2.0 cm3 tissue FFPE Tumor Tissue: Formalin-fixed (10 percent neutral buffered formalin) and paraffin-embedded tissue. Protect from excessive heat. Tissue block will be returned after testing. Transport tissue block or four 10-micron shavings in a tissue transport kit (ARUP Supply #47808) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.
Transport Temperature:	Fresh Tissue: Frozen on dry ice. FFPE Tumor Tissue: Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Tissue: FFPE specimens fixed in any fixative other than 10 percent neutral buffered formalin.
Remarks:	
Stability:	Fresh Tissue: Ambient: Unacceptable; Refrigerated: 2 hours; Frozen: 1 year FFPE Tumor Tissue: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Capillary Electrophoresis / Qualitative Polymerase Chain Reaction (PCR)
Note:	
CPT Codes:	81342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data: Refer to report.	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST – Available Now

Click for Pricing

Brahma-Related Gene-1 (BRG-1) by Immunohistochemistry

3021166, BRG-1 IHC

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue or cells.
Specimen Preparation:	Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 2 slides). If sending precut slides, do not oven bake.
Transport Temperature:	Room temperature or refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Specimens submitted with nonrepresentative tissue type. Depleted specimens.
Remarks:	IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS : Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Immunohistochemistry (IHC)
Note:	This test is performed as a stain and return only.
CPT Codes:	88342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST – Available Now

Click for Pricing

Immunoglobulin M (IgM) by Immunohistochemistry

3021184, IGMIHC

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue or cells.
Specimen Preparation:	Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 2 slides). If sending precut slides, do not oven bake.
Transport Temperature:	Room temperature or refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Specimens submitted with nonrepresentative tissue type. Depleted specimens.
Remarks:	IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS : Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Immunohistochemistry (IHC)
Note:	This test is performed as a stain and return only.
CPT Codes:	88342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Aspergillus Galactofuranose Antigen by EIA, Urine

3021200, MYCOMEIA

Specimen Requirements:	
Patient Preparation:	
Collect:	Random urine
Specimen Preparation:	Transfer 1 mL urine to an ARUP sterile transport tube (ARUP supply #43115). (Min: 0.5 mL)
Transport Temperature:	Frozen.
Unacceptable Conditions:	Specimens other than urine. Urine in boric acid. Grossly bloody urine. Serum: refer to test Aspergillus Galactomannan Antigen by EIA, Serum (ARUP test code 0060068). BAL: refer to Aspergillus Galactomannan Antigen by EIA, Bronchoscopy (ARUP test code 2003150).
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 5 days; Frozen: 21 days
Methodology:	Qualitative Enzyme Immunoassay (EIA)
Note:	For serum specimens, refer to *Aspergillus* Galactomannan Antigen by EIA, Serum (ARUP test code 0060068). For bronchial specimens refer to *Aspergillus* Galactomannan Antigen by EIA, Bronchoscopy (ARUP test code 2003150). For sputum, tissue, or other sterile body fluid specimens, refer to *Aspergillus* Species by PCR (ARUP test code 3000265). Reference ranges for pediatric patients (less than 18 years old) have not been established. Assay ranges were validated in adult subjects.
CPT Codes:	87305
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

An *Aspergillus g*alactofuranose index of greater than or equal to 0.6 is considered positive. This result should be interpreted in the context of patient history, clinical signs/symptoms, and other routine diagnostic tests (e.g., culture, histologic examination of biopsy material, and radiographic imaging).

Cross-reactivity has been observed with the *Aspergillus* galactofuranose antigen assay and infections caused by *Histoplasma*, *Blastomyces*, and *Fusarium*.

Reference Interval:

Test Number	Components	Reference Interval
	Aspergillus Galactofuranose Ag, Urine	Negative
	Aspergillus Galactofuranose Index	≤0.5

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

C and c Antigen Typing-Patient

3021214, C_C_LITTLE

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

E and e Antigen Typing-Patient

3021215, E_ELITTLE

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Fy(a) and Fy(b) Antigen Typing-Patient

3021216, FYA_FYB AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Jk(a) and Jk(b) Antigen Typing - Patient

3021217, JKA_JKB_AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

S and Little s Antigen Typing-Patient

3021218, S_SLITTLE

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

M and N Antigen Typing - Patient

3021219, M_N AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Le(a) and Le(b) Antigen Typing-Patient

3021220, LEA_LEB AG

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA) or pink (K2EDTA).
Specimen Preparation:	Do not freeze. Transport 7 mL whole blood. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	
CPT Codes:	86905 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

ABORH Discrepancy Investigation, IRL

3021221, ABORH DISC

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (K2EDTA), or pink (K2EDTA).
Specimen Preparation:	Do not freeze red cells. Transport 10 mL whole blood. (Min 5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Separator tubes.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Qualitative Agglutination
Note:	Depending on reactivity in the sample, additional testing will be required. Additional charges apply. Client must provide patient transfusion and transplant history along with issues noted in testing.
CPT Codes:	86900; 86901
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Refer to report	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Complement Component C2

3021225, C-2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Allow specimen to clot for one hour at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube and freeze immediately. (Min: 0.3 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Nonfrozen specimens. Specimens exposed to repeated freeze/thaw cycles. Specimens left to clot at refrigerated temperature.
Remarks:	
Stability:	After separation from cells: Ambient: 2 hours; Refrigerated: Unacceptable; Frozen: 2 weeks
Methodology:	Quantitative Immunoturbidimetry
Note:	
CPT Codes:	86160
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.

Interpretive Data:

Decreased C2 levels may be associated with increased susceptibility to infection (especially pneumococcal infections), systemic lupus erythematosus-like disease, rashes, arthritis, nephritis, and with C1-esterase deficiency. Increased C2 levels are associated with the acute phase response.

Reference Interval:

Test Number	Components	Reference Interval
	Complement Component 2	13.3-21.6 mg/L

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Complement Component C5

3021226, C-5

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Allow specimen to clot for one hour at room temperature. Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube and freeze immediately. (Min: 0.3 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Nonfrozen specimens. Specimens exposed to repeated freeze/thaw cycles. Specimens left to clot at refrigerated temperature.
Remarks:	
Stability:	After separation from cells: Ambient: 2 hours; Refrigerated: Unacceptable; Frozen: 2 weeks
Methodology:	Quantitative Immunoturbidimetry
Note:	
CPT Codes:	86160
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval
	Complement C5, Concentration	92.7-179.7 mg/L

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

MYD88 L265P Mutation Detection, Tissue, by PCR, Quantitative

3021230, MYD88TISS

Specimen Requirements:	
Patient Preparation:	
Collect:	Fresh tissue or formalin-fixed tumor tissue.
Specimen Preparation:	FFPE Tumor Tissue : Formalin-fixed (10 percent neutral buffered formalin) and paraffin-embedded tissue. Protect from excessive heat. Transport tissue in a tissue transport kit (ARUP Supply #47808) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.
Transport Temperature:	FFPE Tumor Tissue : Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	FFPE Tumor Tissue: Specimens fixed in any fixative other than 10 percent neutral buffered formalin.
Remarks:	If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will be held until clarification is provided.
Stability:	FFPE Tumor Tissue: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Quantitative Real-Time Polymerase Chain Reaction
Note:	
CPT Codes:	81305
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Reference Interval:

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST

Click for Pricing

Allergen, Food, Walnut (*Juglans* spp) Components IgE

3021309, WALNUT COM

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Plain red or serum separator tube (SST)
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1.0 mL serum to an ARUP standard transport tube. (Min: 0.75 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instruction" at www.aruplab.com/testing/resources/specimen.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Note:	
CPT Codes:	86008x2
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
	Allergen, Walnut Component, rJug r 3	Less than or equal to 0.09 kU/L
	Allergen, Walnut rJug r 1	Less than or equal to 0.09 kU/L

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

NEW TEST – Available Now

Click for Pricing

Latent Membrane Protein 1 (LMP1) by Immunohistochemistry

3021341, LMP1 IHC

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue or cells.
Specimen Preparation:	Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 2 slides). If sending precut slides, do not oven bake. Cut slides no more than 6 weeks prior to testing.
Transport Temperature:	Room temperature or refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	
Remarks:	IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS : Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative Immunohistochemistry (IHC)
Note:	This test is performed as a stain and return only.
CPT Codes:	88342
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.

ARUP LABORATORIES

A nonprofit enterprise of the University of Utah and its Department of Pathology

Inactivations

The following will be discontinued from ARUP's test menu on October 19, 2026
Replacement test options are indicated when applicable.

Test Number	Test Name	Refer to Replacement Test
0040131	RNA Extraction and Storage	RNA Extraction and Storage (3020324)
0050148	Complement Component 2	Complement Component C2 (3021225)
0050156	Complement C5, Concentration	Complement Component C5 (3021226)
0055174	Allergens, Food, Profile 10	
2002124	Allergens, Foods, Common 10	
2004011	Muscle-Specific Actin (MSA) by Immunohistochemistry	
2006978	Allergens, Food, Profile 26 IgE	
2007717	FYA Antigen Typing - Patient	Fy(a) and Fy(b) Antigen Typing-Patient (3021216)
2007719	M Antigen Typing - Patient	M and N Antigen Typing - Patient (3021219)
2007721	Little s Antigen Typing - Patient	S and Little s Antigen Typing-Patient (3021218)
2007723	LEB Antigen Typing - Patient	Le(a) and Le(b) Antigen Typing-Patient (3021220)
2007725	FYB Antigen Typing - Patient	Fy(a) and Fy(b) Antigen Typing-Patient (3021216)
2007727	JKA Antigen Typing - Patient	Jk(a) and Jk(b) Antigen Typing - Patient (3021217)

Test Number	Test Name	Refer to Replacement Test
2007729	JKB Antigen Typing - Patient	Jk(a) and Jk(b) Antigen Typing - Patient (3021217)
2007733	LEA Antigen Typing - Patient	Le(a) and Le(b) Antigen Typing-Patient (3021220)
2007735	N Antigen Typing - Patient	M and N Antigen Typing - Patient (3021219)
2007739	S Antigen Typing - Patient	S and Little s Antigen Typing-Patient (3021218)
2007933	C Antigen Typing - Patient	C and c Antigen Typing-Patient (3021214)
2007939	Little c Antigen Typing - Patient	C and c Antigen Typing-Patient (3021214)
2007941	E Antigen Typing - Patient	E and e Antigen Typing_Patient (3021215)
2007943	Little e Antigen Typing - Patient	E and e Antigen Typing_Patient (3021215)
2010138	RUNX1::RUNX1T1 (AML1::ETO) t(8;21) Detection, Quantitative	RUNX1::RUNX1T1 (AML1::ETO) t(8;21) Detection, Quantitative (3020274)
2011114	CBFB::MYH11 inv(16) Detection, Quantitative	CBFB::MYH11 inv(16) Detection, Quantitative (3020269)