



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0070490	17-Hydroxycorticosteroids, Urine	24-hour urine. Refrigerated during collection. Also acceptable: Random urine. Freeze within 15 minutes of collection, preservative not required. Reported as mg/L, no reference interval provided.	Frozen.	Transfer 12 mL aliquot of urine from a well-mixed 24-hour collection to ARUP Standard Transport Tubes. Also acceptable: Specimens refrigerated with preservatives are acceptable. Sample pH must be 5.0 - 7.0. Mix well, add 1 g boric acid/100 mL urine, adjust pH (with boric acid) to 5.0-7.0 and freeze. Record total volume, collection time, and pH on transport tube and test request form. Random specimens without preservative are acceptable if frozen within 15 minutes of collection.
0098378	17-Hydroxyprogesterone, Urine	24-hour urine. No special preservatives required.	Frozen. On dry ice is preferred. Separate specimens must be submitted when multiple tests are ordered.	Mix specimen well. Refrigerate during collection. Transfer 10 mL aliquot of urine to ARUP Standard Transport Tubes. (Min: 5 mL) Submit total volume.
0080650	17-Ketosteroids, Urine	24-hour urine. Refrigerate during collection.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection into 2 ARUP Standard Transport Tubes or 2 ARUP Standard Transport Tubes containing 20 mg Sulfamic Acid (ARUP supply #48098) available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at (800) 522-2787. (Min: 3 mL/aliquot) Adequate refrigeration is the most important aspect of specimen preservation.
0080420	5-Hydroxyindoleacetic Acid (HIAA), Urine	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer 4 mL aliquot from a well-mixed 24-hour or random collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2014521	Acetaminophen Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 1 mL urine to an ARUP Standard Transport Tube. (Min: 0.3 mL)
0081170	Acyglycines, Quantitative, Urine	Random urine.	Frozen.	Transfer 6 mL urine to ARUP Standard Transport Tubes and freeze immediately. (Min: 3 mL) Avoid dilute urine when possible.
0050203	Albumin-Creatinine Ratio, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random or other timed urine.	Refrigerated.	Transfer 1 mL aliquot of urine from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
2010136	Alcohol, Urine, Quant	Random urine.	Room temperature.	Transfer 4 mL urine without additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
0070480	Aldosterone, Urine	24-hour urine. Urine must be refrigerated during collection.	Frozen. Also acceptable: Refrigerated, if preserved with HCl or acetic acid.	Add 1 g boric acid per 100 mL urine. Transfer 4 mL aliquot of urine from a 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form. Also acceptable: Preserved urine if the pH of the specimen is adjusted to 2-4 with 6M HCl or 50 percent acetic acid or unpreserved urine if frozen immediately after collection.



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0050043	Alpha-1-Microglobulin, Urine	24-hour urine. Specimen must be refrigerated during collection.	Refrigerated.	Transfer a 4 mL aliquot from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.4 mL) Do not add acid or other preservatives. Record total volume and collection time interval on transport tube and test request form.
0099408	Aluminum, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
2009419	Amino Acids Quant by LC-MS/MS, Urine	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Mix urine well. Transfer 4 mL aliquot of urine to ARUP Standard Transport Tubes and freeze immediately. (Min: 3 mL)
2011474	Aminolevulinic Acid (ALA), Random Urine	Random urine.	Refrigerated.	Transfer a 4 mL aliquot from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 1.2 mL)
0080103	Aminolevulinic Acid (ALA), Urine	24 hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer a 4 mL aliquot from a well-mixed 24 hour or random collection to an ARUP Standard Transport Tube. (Min: 1.2 mL)
2012209	AMPH Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4.0 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2.0 mL)
2014043	Amphetamines (D/L Differentiation)	Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 2 mL urine to an ARUP Standard Transport Tube. (Min: 0.7 mL)
2010075	Amphetamines, Urn, Quant	Random urine.	Room temperature	Transfer 0.5 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 0.3 mL)
0020471	Amylase, Urine	24-hour or timed urine collection with no preservatives. Refrigerate during collection.	Refrigerated.	Mix timed urine collection well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
2008682	Anabolic Steroids Screen w/Rflx to Conf	Urine.	Refrigerated. Also acceptable: Frozen.	Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1.6 mL)
0096048	Antidepressant Panel Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 2 mL urine to an ARUP Standard Transport Tube. (Min: 0.7 mL)



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0020734	Arsenic, Fractionated, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot of urine from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
2011478	Arsenic, Rndm Urn w/Rflx to Fractionated	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116), available online through eSupply using ARUP Connector contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
0025000	Arsenic, Urine w/ Reflex to Fractionated	24-hour or random urine collection. Specimen must be collected in a plastic container and refrigerated during collection. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
0095227	Arylsulfatase A, 24-Hour Urine	24-hour urine. Do not use preservatives. Keep refrigerated during collection.	Refrigerated.	Transfer 6 mL urine to ARUP Standard Transport Tubes. (Min. 2.5 mL)
2014314	Autism and Intellectual Disability Compr	Test Requires 4 Specimens: Urine, Plasma, and 2 Whole Blood Urine: Random urine. Avoid dilute urine when possible. Plasma: Green (Sodium or Lithium Heparin). Whole Blood, Specimen 1: Lavender (EDTA), Pink (K[2] EDTA), or Yellow (ACD). Whole Blood, Specimen 2: Green (Sodium Heparin). Also acceptable: Lavender (EDTA).	Urine and Plasma: CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered. Whole Blood Specimens: Room temperature.	Urine: Transfer 15 mL urine to ARUP Standard Tubes and freeze immediately. (Min: 10 mL; for volumes less than 10 mL, contact the Biochemical Genetics Lab before sending the specimen) Avoid dilute urine when possible. Plasma: Separate from cells ASAP or within 2 hours of collection. Avoid transferring buffy coat material. Transfer 2.5 mL plasma to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.75 mL) Whole Blood Specimens: Transport 5 mL whole blood for each tube. (Min: 1.5 mL each)
2014312	Autism and Intellectual Disability Panel	Urine and Plasma. Urine: Random urine. Avoid dilute urine when possible. Plasma: Green (Sodium or Lithium Heparin).	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Urine: Transfer 15 mL urine to ARUP Standard Tubes and freeze immediately. (Min: 10mL; for volumes less than 10 mL, contact the Biochemical Genetics Lab before sending the specimen) Avoid dilute urine when possible. Label container with specimen type. Plasma: Separate from cells ASAP or within 2 hours of collection. Avoid transferring buffy coat material. Transfer 2.5 mL plasma to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.75 mL) Label container with specimen type.
2006885	Barbiturates Detection, Urine	Random Urine	Refrigerated. If transport is prolonged: Refrigerate.	



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2012211	Barbiturates, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4.0 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2.0 mL)
2012213	Barbiturates, Urn, Quant	Random urine.	Room temperature.	Transfer 3.5 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1.5 mL)
2008650	Bath Salts Panel, Urine	Urine.	Frozen. Also acceptable: Refrigerated.	Transport 1 mL urine in an ARUP Standard Transport Tube. (Min: 0.40 mL)
2013667	Bence Jones Protein, Quant and Charac	24-hour urine. Refrigerate during collection. Also acceptable: Random urine or urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour collection to individual ARUP Standard Transport Tubes. (Min: 4 mL)
2012225	Benzodiazapines Urn Screen w/reflex	Random urine.	Room Temperature	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2008291	Benzodiazepines, Urn, Quant	Random urine.	Room temperature.	Transfer 0.5 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 0.3 mL)
0080432	Beta-2-Microglobulin, Urine	Random urine.	Frozen	Transfer one 3 mL aliquot from a well-mixed random collection to an ARUP Standard Transport Tube. (Min: 1 mL) If pH is greater than 8, lower pH to 6-8 by adding 1M HCL. If pH less than 6, increase pH to 6-8 by adding 5% NaOH. Titrate with appropriate preservative until pH of 6-8 has been reached. Record the pH on the transport tube and test request form.
0020229	Beta-hCG, Urine Qualitative	Urine in a plastic container. First-morning urine is the preferred specimen as it usually contains the highest concentration of beta-hCG; however, any specimen is suitable for testing.	Refrigerated.	Transfer 1 mL aliquot of urine to an ARUP Standard Transport Tube. If frozen, mix after thawing. Do not refreeze.
0020245	Bicarbonate (HCO ₃), Urine	Random urine in sealed container.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Immediately upon collection, mix and transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 0.3 mL) Do not expose to air.
2002464	BJProtein Qnt w/Rflx k/I FLC w/Ratio, U	24-hour urine. Refrigerate during collection. Also acceptable: Random urine specimens and urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from well-mixed 24 hour collection to individual ARUP Standard Transport Tubes. (Min: 4 mL)
2002310	BK Virus Detection by PCR, Urine	Urine.	Frozen.	Transport 1 mL urine to a sterile container. (Min: 0.5 mL).
0090067	BK Virus, Quantitative by PCR	Lavender (EDTA), pink (K2EDTA) or serum separator tube OR urine.	Refrigerated.	Transport 1 mL whole blood, serum, plasma or urine in a sterile container. (Min: 0.5 mL).



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8100500	Bladder Tumor Associated Ag Final Report	Urine.	Refrigerated.	Transport 2 mL urine.
3001798	Blastomyces Ag Quant by ELISA, Urine	Urine.	Refrigerated.	Transfer 1 mL urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
2012273	Buprenorphine, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube (Min: 2 mL)
2010092	Buprenorphine, Urn, Quant	Random urine.	Room temperature.	Transfer 2 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
0060241	C. trachomatis & N. gonorrhoeae by TMA	Vaginal, throat, or rectal specimen collected with pink swab from Aptima MultiTest Swab Specimen Collection kit (ARUP supply #55224 PK/50 or #55229 PK/10) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: Cervical, eye or male urethral specimen collected with blue swab from Aptima Unisex Swab Specimen Collection kit (ARUP supply #28907 PK/50 or #54555 PK/10) or first catch urine in a sterile container. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to an Aptima Urine Specimen Transport Tube (ARUP supply #28908 PK/50 or 54556 PK/10). Liquid level must be between fill lines on tube.
2013768	C. trachomatis L serovars (LGV) by PCR	Vaginal, rectal, cervical, urethral, genital, or penile swab with APTIMA Unisex Swab Specimen Collection kit (ARUP supply #28907) OR in Viral Transport Media (ARUP supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: Urine. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated	APTIMA Swab: Place blue swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine to an APTIMA Urine Specimen Transport Tube (ARUP supply #28908) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Liquid level must be between fill lines on tube. Swab in Viral Transport Media (UTM): Transfer swab to viral transport media.
0081121	C-Peptide, 24 Hour Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random urine (no reference intervals).	Frozen.	Transfer 2 mL aliquot from a well-mixed 24-hour urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)



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Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0025013	Cadmium Exposure Panel - OSHA	Royal blue (K ₂ EDTA or Na ₂ EDTA) AND minimum 40 mL urine using spot technique (single void) in an open-top urine collection cup.	Blood: Refrigerated. Urine for Beta-2-Microglobulin: Frozen Urine for Cadmium: Refrigerated. Urine for Creatinine: Refrigerated.	Transfer specimens to the appropriate transport device using the Cadmium exposure kit, ARUP supply #16450, available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at (800) 522-2787. Blood: Transport 7 mL whole blood in the original collection tube. (Min: 0.5 mL) Urine for Beta-2-Microglobulin: Transfer 3 mL aliquot from original urine collection to an ARUP Standard Transport Tube. Adjust the pH of this specimen immediately after pouring off collection, so the pH is between 6 and 8. Use 1M HCl or 5 percent NaOH to adjust the urine pH. Label tube as beta2 Microglobulin. Freeze within one hour of collection. Urine for Cadmium: Transfer 7 mL aliquot from original urine collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at (800) 522-2787. (Min: 0.5 mL) Label tube as Cadmium. Urine for Creatinine: Transfer 2 mL aliquot from original urine collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Label tube as Creatinine.
2011479	Cadmium, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116), available online through eSupply using ARUP Connector contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0025040	Cadmium, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0020472	Calcium, Urine	24-hour urine specimens. Urine must be refrigerated during collection. Also acceptable: Random urine.	Refrigerated.	Adjust pH to 1.5-2.0 by adding 6M HCl in 1 mL increments. Transfer one 3 mL aliquot from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube and test request form.
2008708	Calculi Risk Assessment Panel, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Thoroughly mix entire collection (24-hour) in one container. Transport four separate 4 mL aliquots of urine using Calculi Risk/Supersaturation Urine Collection Kit (ARUP supply# 46007). Available online through eSupply using ARUP Connect(TM) or contact Client Services at (800) 522-2787. Do not exceed 4 mL in tubes. Aliquot according to the following specifications: 1st aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. Freeze immediately. 2nd aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. Freeze immediately. 3rd aliquot (pH 9): Transfer 4 mL urine into a Sodium Carbonate Tube. (Min: 4mL) Mix well. Freeze immediately. 4th aliquot: Transfer 4 mL urine into an Unpreserved Tube. (Min: 4 mL) Freeze immediately. If collection kit is unavailable, transport four 4 mL unadjusted aliquots of urine.



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2012219	Carisoprodol and Met, Urine, Quant	Random urine.	Refrigerated.	Transfer 2 mL urine to an ARUP Standard Transport Tube. (Min: 0.7 mL)
2012278	Carisoprodol, Urn Screen w/Reflex	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0081308	Carnitine, Free and Total Urine	Random urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Freeze specimen immediately after collection. Transport 5 mL urine. (Min: 2 mL)
0081309	Carnitine, Free, Urine	Random urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Freeze specimen immediately after collection. Transport 5 mL urine. (Min: 2 mL)
0081307	Carnitine, Total, Urine	Random urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Freeze specimen immediately after collection. Transport 5 mL urine. (Min: 2 mL)
0080407	Catecholamines Fractionated, Urine Free	24-hour or random urine. Refrigerate 24-hour specimen during collection.	Refrigerated.	Thoroughly mix entire collection (24-hour or Random) in one container. Transfer a 4 mL aliquot to an ARUP Standard Transport Tube. (Min: 2.5 mL) Catecholamines are not stable above pH 7. The pH of such specimens must be adjusted by the addition of 6M HCl acid or sulfamic acid prior to transport. A pH less than 2 can cause assay interference. Specimen preservation can be extended to 1 month refrigerated by performing one of the following: Option 1: Transfer a 4 mL aliquot to an ARUP Standard Transport Tube and adjust pH to 2.0-4.0 with 6M HCl. (Min: 2.5 mL) Option 2: Transfer a 4 mL aliquot to an ARUP Standard Transport Tube containing 20 mg sulfamic acid (ARUP Supply #48098), available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2.5 mL)
2008811	Catecholamines Fractionated, Urine Vet	Random or 24-hour urine. Refrigerate 24-hour specimen during collection.	Refrigerated. Also acceptable: Frozen.	Transfer a 4 mL aliquot from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 2.5 mL) Preservation can be enhanced by adjusting the pH to 2-3 by adding an acid such as 6 mol/L HCl. Catecholamines are not stable above pH 7. The pH of such specimens must be adjusted by the addition of acid prior to transport. A pH less than 2 can cause assay interference.



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2013767	Chlamydia and Gonorrhea with LGV reflex	Endocervical, vaginal or male urethral specimen with APTIMA Unisex Swab Specimen Collection kit (ARUP supply #28907) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: First catch urine. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place blue swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to an APTIMA Urine Specimen Transport Tube (ARUP supply #28908) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Liquid level must be between fill lines on tube.
0060243	Chlamydia trachomatis by TMA	Vaginal, throat, or rectal specimen collected with pink swab from Aptima MultiTest Swab Specimen Collection kit (ARUP supply #55224 PK/50 or #55229 PK/10) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: Cervical, eye, or male urethral specimen collected with blue swab from Aptima Unisex Swab Specimen Collection kit (ARUP supply #28907 PK/50 or #54555 PK/10), first catch urine in sterile container or cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to Aptima Urine Specimen Transport Tube (ARUP supply #28908 PK/50 or #54556 PK/10). Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an Aptima Specimen Transfer Tube (ARUP supply #42711) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the Aptima Specimen Transfer Tube prior to Cytology Testing.
3000300	Chlamydia trachomatis Confirm by TMA	Vaginal, male urethral, rectal, pharyngeal, or endocervical specimen with APTIMA Unisex Swab Specimen Collection kit (ARUP supply #28907) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: First catch urine OR Cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place blue swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube (ARUP supply #28908). Available online through eSupply using ARUP Connect or contact ARUP Client Services at (800) 522-2787. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an APTIMA Specimen Transfer Tube (ARUP supply #42711). Available online through eSupply using ARUP Connect or contact ARUP Client Services at (800) 522-2787. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the APTIMA Specimen Transfer Tube prior to Cytology Testing.



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2011311	Chloride, Random Urine	Random urine.	Refrigerated.	Transfer 1 mL aliquot of urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
0020850	Chloride, Urine	24-hour urine (without additives). Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Transfer 1 mL aliquot of urine from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
0025068	Chromium, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0020852	Citric Acid, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Adjust pH to less than or equal to 2 by adding 6M HCl. Transfer a 4 mL aliquot of urine to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube and test request form. Also acceptable: Specimens previously preserved with boric acid.
0025032	Cobalt, Urine	24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
2012231	Cocain, Urn Screen w/reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0090306	Cocaine and Metabolites Detection	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
0090359	Cocaine Met, Urine, Quant	Random urine.	Room temperature.	Transfer 3.5 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1.5 mL)
2011075	Coccidioides Antigen by EIA	Plain Red, Serum Separator Tube (SST), Lavender (K[2] or K[3]EDTA), Pink (K [2]EDTA), Green (Sodium or Lithium Heparin), or Light Blue (CTAD). Also acceptable: Urine, CSF, or BAL.	Refrigerated. Also acceptable: Room temperature or frozen.	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)
0020461	Copper Level Urine	24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)



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2011480	Copper, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116), available online through eSupply using ARUP Connector contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0092100	Cortisol and Cortisone, Urine Free	24-hour or random urine. Refrigerate 24-hour specimen during collection.	Refrigerated.	Transport one 4 mL aliquot of urine. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
0097222	Cortisol, Urine Free by LC-MS/MS	24-hour or random urine. Refrigerate 24-hour specimen during collection.	Refrigerated.	Transport one 4 mL aliquot of urine. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2007081	Cotinine Screen, Urine	Random urine	Refrigerated	Transfer 4 mL urine with no additives to an ARUP Standard Transport Tube. (Min: 2 mL)
2002333	Creatine Disorders Panel, Urine	Random or timed urine.	Frozen.	Transfer 2 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.5 mL)
2002343	Creatine Urine	Random urine.	Frozen.	Transfer 2 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.5 mL)
0020474	Creatinine Clearance, Urine	24-hour urine. Specimen must be refrigerated during collection. AND Plasma Separator Tube (PST) or Serum Separator Tube (SST), collected within 24 hours prior to the beginning of the 24-hour urine collection or within 24 hours after the urine collection is completed.	Refrigerated.	Transfer one 3 mL aliquot from a well-mixed 24-hour urine collection AND 1 mL serum or plasma to individual ARUP Standard Transport Tubes (Min: 0.5 mL urine and 0.2 mL serum or plasma).
0020473	Creatinine, 24-Hour Urine	24-hour urine. Specimen must be refrigerated during collection. Also acceptable: Random urine (no reference intervals).	Refrigerated.	Transfer one 3 mL aliquot to an ARUP Standard Transport Tube. (Min: 0.5 mL) Also acceptable: Specimens previously preserved with 6M HCl, boric acid, or 5 percent NaOH.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2011164	CT/NG TMA with Rfx to Confirmation	Vaginal specimen collected with pink swab from Aptima MultiTest Swab Specimen Collection kit (ARUP supply #55224 PK/50 or #55229 PK/10) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: Cervical or male urethral specimen collected with blue swab from Aptima Unisex Swab Specimen Collection kit (ARUP supply #28907 PK/50 or #54555 PK/10), first catch urine in sterile container or cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated	Swab: Place swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to Aptima Urine Specimen Transport Tube (ARUP supply #28908 PK/50 or #54556 PK/10) available online through eSupply using ARUP Connect (TM) or contact ARUP Client Services at (800) 522-2787. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an Aptima Specimen Transfer Tube (ARUP supply #42711) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the Aptima Specimen Transfer Tube prior to Cytology Testing.
0060152	Culture, Acid Fast Bacilli	Respiratory specimens. Also acceptable: Body fluid, CSF, gastric aspirate, tissue, or urine.	Refrigerated.	Place each specimen in an individually sealed bag. Respiratory Specimens: Transfer (for each collection) 5-10 mL to a sterile container. (Min: 1 mL) Body Fluids: Transfer 5 mL to a sterile container. (Min: 1 mL culture only) CSF: Transfer 5 mL to a sterile container. (Min: 1 mL culture only. Min: 5 mL culture and stain) Gastric Aspirates: Must be neutralized (pH7) with sodium carbonate if transport is delayed for more than four hours. Transfer 5-10 mL to a sterile container. (Min: 1 mL) Tissue: Transfer to a sterile container. (Min: Visible) Urine: Transfer at least 40 mL to a sterile container. (Min: 10 mL culture only. Min: 40 mL culture and stain)
0065004	Culture, Cytomegalovirus Rapid	Lavender (EDTA) or pink (K ₂ EDTA). OR bronchoalveolar lavage (BAL), throat swab, tissue, or urine.	Refrigerated.	Blood: Transport 5 mL whole blood. (Min: 1 mL) Fluid specimen: Transfer specimen to a sterile container. Transfer 2 mL fluid to a sterile container. (Min: 0.5 mL). Also acceptable: Transfer to viral transport media (ARUP supply #12884). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Swab or tissue: Place in viral transport media. Place each specimen in an individually sealed bag.
0060158	Culture, Leptospira	Green (sodium heparin) or sodium oxalate. Also acceptable: Bactec aerobic resin bottle or other commercial blood culture bottles, CSF, or urine.	Room temperature.	Blood: Transport 1 mL whole blood in heparin, sodium oxalate tube, or blood culture bottles. (Min: 1 mL) CSF: Transport 0.5 mL CSF in a sterile container. (Min: 0.1 mL) Urine: Dilute 1 mL urine 1:10 in 1 percent bovine serum albumin within one hour of collection. Transport 4 mL diluted urine in a sterile container. (Min: 0.1 mL)
0065056	Culture, Mumps	CSF (in meningitis), nasopharyngeal swab, parotid gland duct swab, saliva, throat swab, or urine.	Refrigerated.	Fluid: Transfer specimen to a sterile container. Transfer 2 mL fluid to a sterile container. (Min: 0.5 mL). Also acceptable: Transfer to viral transport media (ARUP supply #12884). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Swab: Place in viral transport media.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0065055	Culture, Rubeola (Measles)	Nasopharyngeal aspirate or washing, nasopharyngeal swab, throat swab, conjunctival swab, lung tissue, CSF, or urine.	Refrigerated.	Fluid: Transfer 3 mL specimen to a sterile container. (Min: 0.5 mL) Also acceptable: Transfer to 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Swab: Place in 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787.
0065031	Culture, Ureaplasma spp and M hominis	Body fluid, CSF, semen, cervical or urethral swab, tissue, or urine. Also acceptable: Respiratory specimens from patients younger than 1 year of age.	Frozen. Transport specimen on dry ice.	Place swab or 0.5 mL of fluid (Min: 0.3 mL). in Mycoplasma/Ureaplasma transport media (UTM) (ARUP supply #12884) immediately. Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: Any transport media validated for Mycoplasma/Ureaplasma transport such as M4 (DO NOT USE M4 RT).
0060131	Culture, Urine	Midstream urine or foley catheter urine.	Unpreserved: Refrigerated. Boric Acid Transport Tube: Room temperature.	Transfer urine to a sterile container. (Min: 1 mL) Also acceptable: Transfer urine to a boric acid transport tube (fill to minimum line).
0091155	Cyclobenzaprine Quantitative, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature and frozen.	Transfer 1 mL urine to an ARUP Standard Transport Tube. (Min: 0.4 mL)
0081106	Cystine Quantitative, Urine	24-hour or other timed urine collection. Avoid dilute urine when possible. Refrigerate 24-hour/timed specimens during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Mix urine well. Transfer 4 mL aliquot urine to ARUP Standard Transport Tubes and freeze immediately. (Min: 3 mL) Record total volume and collection time interval on transport tube and test request form.
0081105	Cystinuria Panel	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Mix urine well. Transfer 8 mL urine to ARUP Standard Transport Tubes and freeze immediately. (Min: 3 mL)
0060040	Cytomegalovirus by Qualitative PCR	Lavender (EDTA), Pink (K2EDTA), or Serum Separator Tube (SST). Also acceptable: Amniotic fluid, bronchoalveolar lavage (BAL), CSF, ocular fluid, tissue, urine, or dried blood spot (DBS).	Frozen. Whole Blood or Bone Marrow: Refrigerated. Dried Blood Spot: Room temperature.	Separate serum or plasma from cells. Transfer 1 mL plasma, serum, whole blood, bone marrow, amniotic fluid, BAL, CSF, ocular fluid, or urine to a sterile container. (Min: 0.5 mL) Dried Blood Spot: Whole blood collected on newborn screening card (3/16 inch punch). Transport punch in an ARUP Standard Transport Tube. Tissue: Transfer to a sterile container and freeze immediately.
0070212	Deoxypyridinoline Crosslinks, Urine	Urine.	Frozen.	Transfer 3.5 mL aliquot from a well-mixed, first-morning urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
0091258	Diuretic Screen, Urine	Random urine.	Refrigerated. Also acceptable: Frozen.	Transfer 10 mL urine to ARUP Standard Transport Tubes. (Min: 1.2 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0095155	DNA Analysis - Ploidy and S-Phase	Tumor tissue, body fluid, peripheral blood in Green (Sodium or Lithium Heparin), bone marrow in Green (Sodium or Lithium Heparin), OR urine/bladder washings.	Tissue (paraffin embedded), Peripheral Blood or Bone Marrow: Refrigerated Body Fluid or Urine/Bladder Washings: Refrigerated	Tissue: Paraffin embed tissue block enriched with tumor OR Body Fluid: Transport: 100 mL body fluid. (Min: 10 mL) OR Peripheral Blood: Transport 5 mL whole blood. (Min: 1 mL) OR Bone Marrow: Transport 2 mL bone marrow. (Min: 1 mL) Specimens with low mononuclear cell counts may require more volume. OR Urine/Bladder Washings: Centrifuge and remove supernatant. The cell pellet should then be re-suspended in a cell culture media such as Hank's Balanced Salt Solution or RPMI.
2003345	Drug of Abuse Screen only Point of Care	30 mL Random Urine in a clean and dry container.	Refrigerated.	Specimens exhibiting visible particulates should be centrifuged. Transfer urine into four yellow top urine vacuum tubes using a transfer straw. Centrifuge. Pipette 30 mL urine avoiding contact with particulates at the bottom of the vacutainer into Integrated E-Z Split Key Cup. Original specimen container is stored refrigerated for 24 hours at the testing area.
0090448	Drug Panel 7, Screen Only, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0092184	Drug Panel 7, Urn, Scrn w/Rflx to Conf	Random urine.	Refrigerated.	Transfer 8 mL urine with no additives or preservative to ARUP Standard Transport Tubes. (Min: 4 mL)
0090449	Drug Panel 7A, Screen Only, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0092185	Drug Panel 7A, Urn, Scrn w/Rflx to Conf	Random urine.	Refrigerated.	Transfer 8 mL urine with no additives or preservatives to ARUP Standard Transport Tubes. (Min: 4 mL)
0090453	Drug Panel 9, Screen Only, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0092186	Drug Panel 9, Urn, Scrn w/Rflx to Conf	Random urine.	Refrigerated.	Transfer 8 mL urine with no additives or preservatives to ARUP Standard Transport Tubes. (Min: 4 mL)
0090454	Drug Panel 9A, Screen Only, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0092187	Drug Panel 9A, Urn, Scrn w/Rflx to Conf	Random urine.	Refrigerated.	Transfer 8 mL urine with no additives or preservatives in ARUP Standard Transport Tubes. (Min: 4 mL)
0090500	Drug Screen (Nonforensic), Urine	Fresh random urine.	Refrigerated.	Transport 25 mL urine. (Min: 12 mL)
0092280	Drug Screen and Conf, Alcohol, Urine	Random urine.	Room temperature.	Transport 10 mL urine. (Min: 2 mL) Newborn minimum: 1 mL for the initial test and 1 mL for the confirmation of screen positive.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2003332	Drug Screen POC with Reflex Confirmation	30 mL Random Urine in a clean and dry container.	Refrigerated.	Specimens exhibiting visible particulates should be centrifuged. Transfer urine into four yellow top urine vacuum tubes using a transfer straw. Centrifuge. Pipette 30 mL urine avoiding contact with particulates at the bottom of the vacutainer into Integrated E-Z Split Key Cup. Original specimen container is stored refrigerated for 24 hours at the testing area.
0080351	Ehlers-Danlos Syndrome Type VI Screen	Urine. First-morning void. Also acceptable: Random specimens.	Frozen.	Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 3 mL)
0020498	Electrolyte Panel Urine	24-hour or random urine. Refrigerate during collection.	Refrigerated.	Do not adjust specimen pH. Transfer a 1 mL aliquot of urine from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
0040191	Eosinophil Urine	Random urine.	10 mL aliquot from a well-mixed random collection at 2-8 Degrees C. (Min: 5 mL)	
2012695	ETG Screen, Only	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
0090518	Ethanol, Urine, Qualitative - Medical	Fresh random urine.	Refrigerated.	Mix specimen well. Transfer 10 mL aliquot urine to a tightly sealed container for storage and transport. (Min: 0.5 mL)
2007912	Ethyl Gluc Scrn w/Rflx to Conf, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
2007909	Ethyl Glucuronide/Sulfate, Urn, Quant	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
0092570	Fentanyl and Metabolite, Urn, Quant	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 0.5 mL)
2012284	Fentanyl, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives in ARUP Standard Transport Tubes. (Min: 1 mL)
3000183	Flunitrazepam and Metabolites w/Rflx, U	Random urine	Refrigerated. Also acceptable: Frozen.	Transfer 3 mL urine to an ARUP Standard Transport Tube. (Min: 1.4 mL)
2012227	Gabapentin, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to an ARUP Standard Transport Tube. (Min: 0.6 mL)
0091161	Gamma-Hydroxybutyric Acid Screen, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 2.4 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0020476	Glucose Urine	24-hour urine. Specimen must be refrigerated during collection. Also Acceptable: Random urine (no reference intervals).	Frozen.	Mix 24 hour urine collection well. Transfer 4 mL to an ARUP Standard Transport Tube. (Min 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
2001510	Glutarylcarntine Quantitative, Urine	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 2.5 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.5 mL)
2011304	Heavy Metals Panel 3, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116), available online through eSupply using ARUP Connector contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
0099475	Heavy Metals Panel 3, Urine with Reflex	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
0020572	Heavy Metals Panel 4, Urine with Reflex	24-hour or random urine collection. Specimen must be collected in a plastic container and should be refrigerated during collection. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
0025055	Heavy Metals Panel 6, Urine with Reflex	24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2 mL)
0020221	Hemoglobin, Urine	Random urine.	Frozen.	Centrifuge and separate urine from cells and other sediment. Transfer 4 mL aliquot of supernatant to an ARUP Standard Transport Tube. (Min: 0.7 mL)
0020222	Hemosiderin, Urine	Random urine.	Frozen.	Mix specimen well. Transfer 4 mL to an ARUP Standard Transport Tube. (Min: 1 mL).
0091586	Heroin, Screen w/Rflx to Confirm, Urn	Random urine.	Frozen	Transfer 2 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0070038	Histamine, Urine	Random or 24-hour urine in a plastic container. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer a 4 mL aliquot from a well-mixed random or 24-hour collection to an ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2009418	Histoplasma Galactomannan Ag Quant, Urn	Random urine.	Refrigerated.	Transfer 2 mL urine to an ARUP Standard Transport Tube.
0080422	Homovanillic Acid (HVA), Urine	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer 4 mL aliquot from a well-mixed 24-hour or random collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2007465	Iodine, Urine	24-hour or random urine collection.	Refrigerated.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Tubes (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0099169	JC Virus by PCR	Lavender (EDTA), pink (K2]EDTA) or serum separator tube. OR CSF or urine.	Frozen.	Separate serum or plasma from cells. Transfer 1 mL serum, plasma, CSF or urine to a sterile container. (Min: 0.5 mL)
0050689	Kappa Free Light Chains, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection to individual ARUP Standard Transport Tubes. (Min: 4 mL)
0050161	Kappa/Lambda Free Light Chains Qual, Urn	24-hour urine. Refrigerate during collection. Also acceptable: Random specimens and urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection to individual ARUP Standard Transport Tubes. (Min: 4 mL) Record total volume and collection time interval on transport tube and test request form.
0050618	Kappa/Lambda Free Light Chains Quant Urn	24-hour urine. Refrigerate during collection. Also acceptable: Random urine specimens and urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour collection to individual ARUP Standard Transport Tubes. (Min: 4 mL)
2011167	Keratan Sulfate Quantitative, Urine	Urine.	CRITICAL FROZEN. Separate specimens must be submitted with multiple tests are ordered.	Transfer 2 mL urine to ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL)
2012259	Keratan Sulfate, Qnt by LC-MS/MS, Urine	Urine.	CRITICAL FROZEN. Separate specimens must be submitted with multiple tests are ordered.	Transfer 2 mL urine to ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL)
3000599	Kidney Profile	Plasma Separator Tube (PST) or Serum Separator Tube (SST) AND random urine. Also acceptable: 24 hour urine.	Refrigerated.	Allow serum tube to clot completely at room temperature. Separate from cells ASAP or within 2 hours. Transfer 1 mL serum or plasma to an ARUP Standard Transport Tube. (Min: 0.2 mL) AND Transfer one 3 mL aliquot of urine to an ARUP Standard Transport Tube. (Min: 0.5 mL) Also acceptable: Urine specimens previously preserved with 6M HCl, boric acid, or 5 percent NaOH.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0020843	Kidney Stone Risk Panel, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Thoroughly mix entire collection (24-hour) in one container. Transport four separate 4 mL aliquots of urine using Calculi Risk/Supersaturation Urine Collection Kit (ARUP supply# 46007). Available online through eSupply using ARUP Connect(TM) or contact Client Services at (800) 522-2787. Do not exceed 4 mL in tubes. Aliquot according to the following specifications: 1st aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. Freeze immediately. 2nd aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. Freeze immediately. 3rd aliquot (pH 9): Transfer 4 mL urine into a Sodium Carbonate Tube. (Min: 4 mL) Mix well. Freeze immediately. 4th aliquot: Transfer 4 mL urine into an Unpreserved Tube. (Min: 4 mL) Freeze immediately. If collection kit is unavailable, transport four 4 mL unadjusted aliquots of urine.
0050682	Lambda Free Light Chains, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Urine supernate.	Refrigerated.	Transfer two 4 mL aliquots from a well-mixed 24-hour urine collection to individual ARUP Standard Transport Tubes. (Min: 4 mL)
2011482	Lead, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116), available online through eSupply using ARUP Connector contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0025060	Lead, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0070322	Legionella Pneumophila Antigen, Urine	Random urine.	Refrigerated.	Mix specimen well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
0020147	Lipase, Urine	24-hour or timed urine collection. Sample must be refrigerated during collection.	10 mL aliquot from a well-mixed 24-hour or timed collection at 2-8(Min: 0.5 mL) Submit sample in an ARUP Standard Transport Tube.	Record total volume and collection time interval on transport tube and test request form.
0091224	LSD, Urine - Screen w/Reflex to Quant	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Protect from light. Transfer 2 mL urine to an ARUP Amber Transport Tube. (Min: 0.9 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0020477	Magnesium, Urine	24-hour urine. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Adjust pH to 1 by adding 6M HCl (approximately 10 mL HCl/24-hour specimen based on normal adult output of 1000-2000 mL/24 hours. Pediatric specimens will require less than 10 mL to reach the correct pH). Record total volume and collection time interval on transport tube and test request form. Transfer 4 mL aliquot of urine from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL)
0025070	Manganese, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
3000248	Meperidine and Metabolite Quant, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transport 2 mL urine in an ARUP Standard Transport Tube. (Min: 0.7 mL)
2012288	Meperidine, Urn Screen w/Reflex	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2011481	Mercury, Random Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116), available online through eSupply using ARUP Connector contact ARUP Client Services at (800) 522-2787. (Min: 1 mL).
0025050	Mercury, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
2007996	Metanephrines Fractionated, Urine	24-hour or random urine. Refrigerate 24-hour specimen during collection.	Refrigerated. Also acceptable: Frozen.	Thoroughly mix entire collection (24-hour or Random) in one container. Transfer a 4 mL aliquot to an ARUP Standard Transport Tube. (Min: 2.5 mL) A pH lower than 2 can cause assay interference. Record total volume and collection time interval on transport tube and test request form. Specimen preservation can be extended to 1 month refrigerated by performing one of the following: Option 1: Transfer a 4 mL aliquot to an ARUP Standard Transport Tube. (Min: 2.5 mL) Adjust pH to 2.0-4.0 with 6M HCl. Option 2: Transfer a 4 mL aliquot to an ARUP Standard Transport Tube containing 20 mg sulfamic acid (ARUP Supply #48098), available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 2.5 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2008822	Metanephrines Fractionated, Urine Vet	Random or 24-hour urine. Refrigerate 24-hour specimen during collection.	Refrigerated. Also acceptable: Frozen.	Transfer a 4 mL aliquot from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 1.5 mL) Stability can be enhanced by adjusting the pH to 2-3 by using an acid such as 6 mol/L HCl. A pH lower than 2 may cause assay interference.
0090362	Methadone and Met, Urn, Quant	Random urine.	Room temperature.	Transfer 1 mL with no additives or preservatives urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
2008521	Methadone, Qual, Urine	Random urine.	Refrigerated.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL) Samples within a pH range of 3 to 11 are suitable for testing with this assay.
2006299	Methaqualone Quantitative, Urine	Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 2 mL urine to an ARUP Standard Transport Tube. (Min: 0.7 mL)
0083918	Methylmalonic Acid, Urine	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Frozen.	Transfer a 4 mL aliquot from a well-mixed 24-hour or random urine collection to an ARUP Standard Transport Tube and refrigerate or freeze immediately. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2003115	Methylphenidate and Met, Urn, Quant	Random urine.	Refrigerated.	Transfer 2 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
2009282	MPS II Tot HS+NRE (Sensi-Pro) (R) Qnt, Urine	Urine.	Frozen.	Transfer 2 mL urine to ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL)
0081357	MPS Quantitative, Urine	Urine.	Frozen.	Transfer 10 mL urine to ARUP Standard Transport Tubes and freeze immediately. (Min: 5 mL)
0081352	MPS Screen, Urine	Urine.	Frozen.	Freeze specimen immediately. Transport 20 mL urine. (Min: 10 mL)
3001818	MPS VI, Urine	Urine. Specimen will be collected per clinical trial protocol.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 0.25 mL urine to polypropylene sample tube. (Min: 0.15 mL)
2008781	MPS VII TOT HS+NRE (Sensi-Pro) (R) QNT Urine	Urine.	Frozen.	Transfer 2 mL urine to ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL)
2007488	MPSI - TOT HS+NRE (Sensi-Pro) (R) QNT, Urine	Urine.	Frozen.	Transfer 2mL urine to ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
3001084	MPSIII B, Urine Aliquot A	Urine. Specimen will be collected per clinical trial protocol.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 0.25 mL urine to a polypropylene sample tube. (Min: 0.15 mL)
3001085	MPSIII B, Urine Aliquot B	Urine. Specimen will be collected per clinical trial protocol.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 0.25 mL urine to a polypropylene sample tube. (Min: 0.15 mL)
3001806	MPSIVA, Urine	Urine. Specimen will be collected per clinical trial protocol.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 0.25 mL urine to polypropylene sample tube. (Min: 0.15 mL)
2003294	Mycoplasma hominis Cx (Urogenital Only)	Cervical, urethral or vaginal swab, or semen or urine.	Frozen on dry ice.	Place swab or specimen in Mycoplasma transport media (UTM) (ARUP supply #12884). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 0.5 mL) Also acceptable: Any transport media validated for Mycoplasma/Ureaplasma transport, such as M4 (DO NOT USE M4 RT). Place each specimen in an individually sealed bag.
0020223	Myoglobin, Urine	Random or 24-hour urine. Refrigerate during collection.	Refrigerated.	Thoroughly mix entire collection, then, perform one of the two processing options below: Option 1: Immediately after collection, adjust pH to 8-9 by adding 10 percent Na ₂ CO ₃ . Transfer 1 mL aliquot urine to an ARUP Standard Transport Tube. (Min: 0.5 mL) Option 2: Immediately after collection, transfer a maximum of 4 mL urine to an ARUP Standard Transport Tube pre-filled with Sodium Carbonate (ARUP) supply #48096). (Min: 0.5 mL) Available online through eSupply using ARUP Connect or contact ARUP Client Services at (800) 522-2787.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0060244	N. gonorrhoeae by TMA	Vaginal, throat, or rectal specimen collected with pink swab from Aptima MultiTest Swab Specimen Collection kit (ARUP supply #55224 PK/50 or #55229 PK/10) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: Cervical, eye, or male urethral specimen collected with blue swab from Aptima Unisex Swab Specimen Collection kit (ARUP supply #28907 PK/50 or #54555 PK/10), first catch urine in sterile container or cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to Aptima Urine Specimen Transport Tube (ARUP supply #28908 PK/50 or #54556 PK/10). Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an Aptima Specimen Transfer Tube (ARUP supply #42711) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the Aptima Specimen Transfer Tube prior to Cytology Testing.
2011034	N-Methylhistamine, 24-Hour Urine	24-hour urine OR Random urine collection.	Refrigerated. Also acceptable: Frozen.	Transfer 5 mL urine to an ARUP Standard Transport Tube. (Min: 3 mL)
2011661	N-Telopeptide, Cross-Linked 24-Hr Urine	24-hour urine.	Frozen.	Transfer a 1 mL aliquot of urine from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) No Additives or preservatives.
0070062	N-Telopeptide, Cross-Linked, Urine	Second-morning void or 24-hour urine. Refrigerate during collection. Collect without preservative.	Frozen.	Transfer a 1 mL aliquot of urine from a well-mixed, second-morning void or 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL)
2003141	NBS Confirmatory Acylglycines, Urine	Random urine.	6 mL urine, frozen. (Min: 3 mL) Submit specimen in two ARUP Standard Transport Tubes.	
2003145	NBS Confirmatory Carnitine, Urine	Random urine.	5 mL urine, frozen. (Min: 2 mL)	
2003142	NBS Confirmatory Organic Acids, Urine	Random urine.	10 mL random urine collection, frozen. (Min: 3 mL)	
2003146	NBS Confirmatory Orotic Acid, Urine	Urine. First-morning urine preferred. Random urines are acceptable.	CRITICAL FROZEN.	Urine must be kept refrigerated until frozen and must be frozen within 24 hours of collection. Transport 2 mL urine. (Min: 1 mL) Freeze ASAP or within 2 hours of collection.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
3000302	Neisseria gonorrhoeae Confirm by TMA	Vaginal, male urethral, rectal, pharyngeal, or endocervical specimen with APTIMA Unisex Swab Specimen Collection kit (ARUP supply #28907). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Also acceptable: First catch urine OR Cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated	Swab: Place blue swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine to APTIMA Urine Specimen Transport Tube (ARUP supply #28908). Available online through eSupply using ARUP Connect or contact ARUP Client Services at (800) 522-2787. Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an APTIMA Specimen Transfer Tube (ARUP supply #42711). Available online through eSupply using ARUP Connect or contact ARUP Client Services at (800) 522-2787. To reduce the potential for contamination, ThinPrep specimens should be poured off, using sterile technique, into the APTIMA Specimen Transfer Tube prior to Cytology Testing.
0025045	Nickel, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0092356	Nicotine and Mets, Urn, Quant	Random urine.	Room temperature.	Transfer 4 mL with no additives or preservatives urine to an ARUP Standard Transport Tube. (Min: 1 mL)
0080281	NMP22, Urine	Single void of urine collected between midnight and noon. Urine Stabilization kit required (ARUP Supply #12594). Available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at (800) 522-2787.	Frozen.	Follow instructions provided in the Urine Stabilization kit. Stabilized specimen should be blue/green in color.
2005096	Opiates Screen Only, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2005093	Opiates Screen w/Reflex, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0090312	Opiates, Detection	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
0090364	Opiates, Urn, Quant	Random urine.	Room temperature.	Transfer 0.5 mL with no additives or preservatives urine to an ARUP Standard Transport Tube. (Min: 0.3 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0098389	Organic Acids, Urine	Random urine. Avoid dilute urine when possible.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 9 mL urine to ARUP Standard Tubes and freeze immediately. (Min: 3mL- for volumes less than 3mL, contact the Biochemical Genetics Lab before sending the specimen) Avoid dilute urine when possible.
3000704	Orotic Acid, Urine	First Catch Urine. Also acceptable: Random Urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Specimen must be stored refrigerated until frozen. Transfer 2 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 1 mL)
0020228	Osmolality, Urine	Random urine.	Frozen.	Transfer 1 mL aliquot from a well-mixed random urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
2002277	Ova & Parasite Exam, Body Fluid or Urine	Body fluid, CSF, or urine.	Body Fluid or Urine: Refrigerated. CSF: Room temperature.	Transfer 4 mL body fluid, CSF, or urine to an ARUP Standard Transport Tube (ARUP Supply #46307). (Min: 1 mL)
0020482	Oxalate, Total, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered	Thoroughly mix entire collection (24-hour) in one container. Do not exceed 4 mL in Tubes. Preserved: Transfer 4 mL aliquot to an ARUP Transport Tube with Sulfamic Acid (ARUP supply #48098). Available online through eSupply using ARUP Connect or contact ARUP client services at (800) 522-2787. (Min: 1.5 mL) Mix well. Freeze immediately. Unpreserved: Transport a 4 mL unadjusted aliquot of urine to an ARUP Standard Transport Tube. (Min: 1.5 mL) Freeze immediately.
2008629	Oxycodone, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
2005103	Oxycodone/Oxymorphone Screen Only, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2005100	Oxycodone/Oxymorphone Scrn w/Rflx, Urine	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2012312	Pain Mgmt Pan, Screen w/Rfx to Quant	Random Urine.	Refrigerated.	Transfer 4 mL each into two (2) ARUP Standard Transport Tubes urine with no additives or preservatives. (Min: 2 mL each)
2007479	Pain Mgt Drug Panel, Mass Spec/EMIT, UR	Random urine.	Refrigerated.	Transfer 4 mL each into two (2) ARUP Standard Transport Tubes urine with no additives or preservatives. (Min: 2 mL each)
2009288	Pain Mgt Pan, Mass Spec/EMIT, Ur, Interp	Random urine.	Refrigerated	Transfer 4 mL each into two (2) ARUP Standard Transport Tubes urine with no additives or preservatives. (Min: 2 mL each)
2000183	Pathology Bladder Tumor Antigen Request	Voided urine or urine from a catheterized patient.	Refrigerated.	Transfer 2 mL urine to an ARUP Standard Transport Tube.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2010102	PCA3 by TMA	20-30 mL first catch urine following DRE in preservative-free urine collection cup.	Frozen.	Invert urine container 5 times to mix. Transfer 2.5 mL urine ASAP or within 4 hours of collection into two (2) Progenesa PCA3 Urine Specimen Transport Tubes (ARUP Supply #45682) available online through eSupply using ARUP Connect or contact ARUP Client Services at (800) 522-2787. (Min: 2.5 mL per tube) Liquid level must be between black lines on transport tubes. Cap transport tubes and invert 5 times to mix.
2012265	PCP Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0020305	pH, Urine	Random urine.	Refrigerated.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 2 mL)
2010462	Phencyclidine (PCP), Urn, Quant	Random urine.	Room temperature.	Transport 1 mL urine. (Min: 0.5 mL)
0091260	Phenol Exposure Quantitative, Urine	Urine.	Refrigerated. Also acceptable: Frozen.	Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1.9 mL) Preservative-free urine specimens are recommended.
0020478	Phosphorus, Urine	24-hour urine. Refrigerate specimen during collection. Also acceptable: Random urine.	Frozen.	Mix entire 24-hour collection. Adjust pH to 1.5-2.0 by adding 6M HCl in 1 mL increments. Transfer one 3 mL aliquot from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube and test request form.
2008131	Pipecolic Acid, Urine	Random urine. (first morning urine is preferred)	Frozen.	Transfer 1 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.3 mL)
2011476	Porphobilinogen (PBG), Random Urine	Random urine.	Frozen.	Protect from light. Transfer an 8 mL aliquot from a well-mixed collection to ARUP Amber Transport Tubes. (Min: 3.5 mL)
0080260	Porphobilinogen Quantitative Urine	Random or 24-hour urine. Refrigerate 24-hour specimens during collection.	Frozen.	Protect from light. Transfer 8 mL aliquot from a random or well-mixed 24-hour collection to ARUP Amber Transport Tubes. (Min: 3.5 mL) Record total volume and collection time interval on transport tube and test request form.
2002181	Porphyrins and Porphobilinogen	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Frozen.	Protect from light. Transfer 8 mL aliquot to an ARUP Amber Transport Tube. (Min: 4 mL) Record total volume and collection time interval on transport tube and test request form.
2002058	Porphyrins, Fractionation and Quant, Urn	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Frozen.	Protect from light. Transfer 4 mL aliquot of urine to an ARUP Amber Transport Tube. (Min: 2 mL) Record total volume and collection time interval on transport tube and test request form.
0020849	Potassium Urine	24-hour or random urine without additives. Refrigerate during collection.	Refrigerated.	Transfer a 1 mL aliquot of urine from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 0.2 mL) Record total volume and collection time interval on transport tube and test request form.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2012229	Pregabalin, Urine	Random urine.	Refrigerated.	Transfer 1 mL urine to an ARUP Standard Transport Tube. (Min: 0.6 mL)
2010468	Propoxyphene & Met, Urn, Quant	Random urine.	Room temperature.	Transfer 1 mL with no additives or preservatives urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
3000240	Prostaglandin D2 (PG D2), Urine	Random urine	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 10 mL urine to ARUP Standard Transport Tubes and freeze immediately. (Min: 5 mL)
2012269	Proxiphyene Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2014523	Purines and Pyrimidines Panel, Urine	Urine.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 3 mL urine to an ARUP Standard Transport Tube. (Min: 2 mL)
0070213	Pyridinium Crosslinks (Total), Urine	Urine.	Frozen.	Transfer 3.5 mL aliquot from a well-mixed, first-morning urine to an ARUP Standard Transport Tube. (Min: 0.5 mL)
0080342	Pyridinoline and Deoxypyridin	Urine.	Frozen.	Transfer 8 mL urine to ARUP Standard Transport Tubes. (Min: 4 mL)
2013355	Pyridoxine-Dependent Epilepsy Panel U	Random urine. First morning urine is preferred.	CRITICAL FROZEN (preferred). Refrigerated specimens are acceptable for testing if frozen within 24 hours from start of collection.	Transfer 1 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.3 mL)
3001286	Research Only, Ammonia Urine	Urine	Frozen	Transfer 1 mL aliquot of urine from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 0.5 mL)
0025067	Selenium Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately, if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2006258	Sexually Transmitted Disease Panel 1	Vaginal specimen collected with pink swab from Aptima MultiTest Swab Collection kit (ARUP supply #55224 PK/50 or #55229 PK/10) available online through eSupply using ARUP Connect or contact Client Services at (800) 522-2787. Also acceptable: Cervical specimen collected with blue swab from Aptima Unisex Swab Specimen Collection kit (ARUP supply #28907 PK/50 or #54555 PK/10), first catch urine in sterile container or cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to Aptima Urine Specimen Transport Tube (ARUP supply #28908 PK/50 or #54556 PK/10). Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an Aptima Specimen Transfer Tube (ARUP supply #42711).
0091228	Silver, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Protect from light. Transfer 1 mL urine to a foil-wrapped Acid Washed Transfer Vial (ARUP supply #54350). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 0.4 mL)
0020851	Sodium, Urine	24-hour urine with no additive. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Transport 1 mL aliquot of urine from a well-mixed collection. (Min: 0.2 mL) Record total volume and collection time interval on transport tube and test request form.
0020304	Specific Gravity, Urine	Random urine.	Refrigerated.	Transport 10 mL aliquot from a well-mixed urine collection. (Min: 1 mL)
0090302	Stimulant Amines Detection	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
0060228	Streptococcus pneumoniae Ag, Urine	Random urine.	Refrigerated or frozen.	Mix specimen well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
2007401	Succinylacetone, Quantitative, Urine	Random urine. (First morning urine is preferred)	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 1.0 mL urine to an ARUP Standard Transport Tube and freeze immediately. (Min: 0.3 mL)
0081102	Sulfate, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 2 mL) Additional Information: Record total volume and collection time on tube and test request form.
0091100	Sulfonylurea Hypoglycemics Panel, Urine	Random urine.	Refrigerated. Also acceptable: Frozen	Transfer 5 mL urine to ARUP Standard Transport Tubes. (Min: 1.2 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2008771	Supersaturation Profile, Urine	24-hour urine. Refrigerate during collection.	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.	Thoroughly mix entire collection (24-hour) in one container. Transport four separate 4 mL aliquots of urine using Calculi Risk/Supersaturation Urine Collection Kit (ARUP supply# 46007). Available online through eSupply using ARUP Connect(TM) or contact Client Services at (800) 522-2787. Do not exceed 4 mL in tubes. Aliquot according to the following specifications: 1st aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. Freeze immediately. 2nd aliquot (pH 2): Transfer 4 mL urine into a Sulfamic Acid Tube. (Min: 4 mL) Mix well. Freeze immediately. 3rd aliquot (pH 9): Transfer 4 mL urine into a Sodium Carbonate Tube. (Min: 4 mL) Mix well. Freeze immediately. 4th aliquot: Transfer 4 mL urine into an Unpreserved Tube. (Min: 4 mL) Freeze immediately. If collection kit is unavailable, transport four 4 mL unadjusted aliquots of urine.
3000508	Synthetic Cannabinoid Metabolites, Urine	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer 3 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1.2 mL)
2003128	Tapentadol and Metabolite, Urn, Quant	Random urine.	Room temperature.	Transfer 2 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 1 mL)
2012294	Tapentadol, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0025019	Thallium, Urine	24-hour or random urine collection. Specimen must be collected in a plastic container. ARUP studies indicate that refrigeration of urine alone, during and after collection, preserves specimens adequately if tested within 14 days of collection.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
0090369	THC Metabolite, Urn, Quant	Random urine.	Room temperature.	Transfer 1 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 0.5 mL)
2012270	THC Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
0090064	Thiocyanate, 24-Hour Urine	24-hour urine. Specimen must be refrigerated during collection.	Refrigerated.	Transport 25 mL aliquot from a well-mixed, 24-hour urine. (Min: 2 mL) Record total volume and collection time on transport tube and test request form.
0090063	Thiocyanate, Random Urine	Random urine.	Refrigerated.	Mix specimen well. Transport 20 mL aliquot of urine. (Min: 2 mL)
0020479	Total Protein, Urine	24-hour urine with no additive. Also acceptable: Random urine.	Refrigerated.	Transfer 4 mL aliquot of urine from a well-mixed collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2002736	Tramadol and Metabolite, Urn, Quant	Random urine.	Room temperature.	Transfer 2 mL urine with no additives or preservatives an ARUP Standard Transport Tube. (Min: 1 mL)
2012297	Tramadol, Urn Screen w/Reflex	Random urine.	Refrigerated.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2005506	Trichomonas vaginalis by TMA	Vaginal specimen collected with pink swab from Aptima MultiTest Swab Collection kit (ARUP supply #55224 PK/50 or #55229 PK/10) available online through eSupply using ARUP Connect or contact Client Services at (800) 522-2787. Also acceptable: Cervical specimen collected with blue swab from Aptima Unisex Swab Specimen Collection kit (ARUP supply #28907 PK/50 or #54555 PK/10), first catch urine in sterile container or cervical brush in ThinPrep Pap test collection kit. Refer to "Sample Collection for the Diagnosis of STD" under Specimen Handling at www.aruplab.com for specific specimen collection and transport instructions.	Refrigerated.	Swab: Place swab in Swab Specimen Transport Tube, break shaft off at scoreline then recap tube. Urine: Transfer 2 mL urine within 24 hours to Aptima Urine Specimen Transport Tube (ARUP supply #28908 PK/50 or #54556 PK/10). Liquid level must be between fill lines on tube. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to an Aptima Specimen Transfer Tube (ARUP supply #42711).
2007515	Tricyclic Antidepressants, Quant, Urine	Random urine.	Refrigerated.	Transfer 2 mL urine to ARUP Standard Transport Tube. (Min: 0.7 mL)
2005207	Urea Clearance	24-hour urine (refrigerate during collection). AND Plasma Separator Tube (PST) or Serum Separator Tube (SST), collected within 48 hours of initiating urine collection.	Refrigerated.	Transfer one 3 mL aliquot of urine from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) AND transfer 1 mL serum or plasma to an ARUP Standard Transport Tube. (Min: 0.2 mL)
0020480	Urea Nitrogen, Urine	24-hour urine with no additive. Refrigerate during collection. Also acceptable: Random urine.	Refrigerated.	Transfer 3 mL aliquot from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume and collection time interval on transport tube and test request form.
2011172	Ureaplasma and Mycoplasma Species by PCR	Genital swab or urine. Also acceptable: Cervical or vaginal specimen collected with the ThinPrep Pap Test Collection Kit.	Frozen	Transfer genital swab or 1 mL urine to viral transport media (ARUP supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. ThinPrep: Vortex ThinPrep PreservCyt solution and transfer 1 mL to a sterile container. (Min: 0.5 mL)



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
0020481	Uric Acid, Urine	24-hour urine. Refrigerate specimen during collection. Also acceptable: Random urine.	Refrigerated.	Urine pH must be adjusted to greater than 8.0. If pH is less than or equal to 8.0, adjust pH to greater than 8.0 by adding 5 percent NaOH. Mix well and allow entire 24-hour collection to stand for 15 minutes. Recheck pH and readjust if necessary. Transfer one 3 mL aliquot from a well-mixed 24-hour collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Record total volume, collection time interval, and pH on transport tube or aliquot tube and on test request form.
2007508	Urinalysis with Reflex to Culture	Clean Catch first morning or random urine.	Refrigerated.	Transport 10 mL sterile aliquot from a well-mixed random urine. (Min: 3 mL)
0020350	Urinalysis, Complete	Random urine.	Refrigerated.	Transport 10 mL aliquot from a well-mixed random urine. (Min: 3 mL)
0020570	Urinalysis, Dipstick	Random urine.	10 mL aliquot from a well-mixed random collection at 2-8 Degrees C. (Min: 5 mL)	
0020575	Urinalysis, Microscopy	Random urine.	Refrigerated.	Transport 10 mL aliquot from a well-mixed random urine. (Min: 3 mL)
0020306	Urine Protein	Random Urine	Refrigerated	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 2mL)
2009035	Urine Toxicology Screen	Random urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Mix well. Transfer 4 mL urine to an ARUP Standard Transport Tube. (Min: 1 mL)
2001181	UroVysion FISH	Second-morning, clean-catch voided urine specimen in UroVysion FISH Collection Kit (ARUP Supply #41440) available online through eSupply using ARUP Connector contact Client Services at (800) 522-2787. For specific instructions refer to Specimen Collection & Handling.	Refrigerated.	Transport the entire collection in the original collection kit. (Min: 35 mL)
0080421	Vanillylmandelic Acid (VMA), Urine	24-hour or random urine. Refrigerate 24-hour specimens during collection.	Refrigerated.	Transfer 4 mL aliquot from a well-mixed 24-hour or random collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2006496	Viral Culture, Non-Resp and CMV Culture	Eye swab, lesion, tissue (brain, colon, kidney, liver, etc.), or urine.	Refrigerated.	Fluid: Transfer 3 mL specimen to a sterile container. (Min: 0.5 mL) Also acceptable: Transfer to 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Swab or Tissue: Place in 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787.



Urine Preservative and Transport List

Test Code	Test Name	Specimen Collection	Transport Temperature	Preparation
2006498	Viral Culture, Non-Respiratory	Eye swab, lesion, stool, tissue (brain, colon, kidney, liver, etc.), or urine.	Refrigerated.	Fluid: Transfer 3 mL specimen to a sterile container. (Min: 0.5 mL) Also acceptable: Transfer to 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. Stool: Transfer 1 mL stool to an unpreserved stool transport vial (ARUP supply #40910) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 0.5 mL) Swab or Tissue: Place in 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787.
0080470	VMA and HVA, Urine	24-hour or random urine. Refrigerate 24-hour specimen during collection.	Refrigerated.	Transfer 4 mL aliquot from a well mixed 24-hour or random collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
2013916	Zika Virus by PCR	Lavender (EDTA), Pink (K2EDTA), Serum Separator Tube (SST), or urine.	Frozen.	Separate serum or plasma from cells. Transfer 1 mL serum, plasma, whole blood, or urine to a sterile container. (Min: 0.5 mL)
2014069	Zika Virus by PCR, Urine	Urine and patient-matched Serum Separator Tube (SST).	Frozen.	Urine: Transfer 1 mL urine to a sterile container. (Min: 0.5 mL) Serum: Collect and retain 2 mL of patient-matched serum at the client site in the event that serological follow-up testing is needed. (Min: 1 mL)
0020462	Zinc, Urine	24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine. 24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine.	Refrigerated. Also acceptable: Room temperature or frozen.	Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)
2012300	Zolpidem, Urn Screen w/Reflex	Random urine.	Room temperature.	Transfer 4 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 2 mL)
2012319	Zolpidem, Urn, Quant	Random urine.	Room temperature.	Transfer 0.5 mL urine with no additives or preservatives to an ARUP Standard Transport Tube. (Min: 0.3 mL)