

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0070490	17-Hydroxycorticosteroids	Random or *24-hour	Three 4 mL aliquots	Frozen	None if frozen. Also acceptable pH adjusted to 5-7 with boric acid. Add 1 g boric acid/100 mL urine.	Refrigerate 24-hour specimen during collection.
0098378	17-Hydroxyprogesterone, Urine	*24-hour	5 mL	Frozen	None	Refrigerate 24-hour specimen during collection.
0080650	17-Ketosteroids, Urine	*24-hour	4 mL	Refrigerated	Preservation enhanced by adjusting pH to 2-4 with 6M HCl.	Refrigerate 24-hour specimen during collection.
0091379	2,4-Dichlorophenoxyacetic Acid, Urine	Random	4 mL	Room Temperature	None	Refrigerated and frozen samples are also acceptable.
0080420	5-Hydroxyindoleacetic Acid (HIAA), Urine	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0081170	Acylglycines, Quantitative, Urine	Random	6 mL	Frozen	None	Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0070480	Aldosterone, Urine	*24-hour	4 mL	Frozen	Add 1 g boric acid/100 mL urine.	Refrigerate 24-hour specimen during collection. Specimen without preservative is acceptable if frozen immediately after collection.
0050043	Alpha-1-Microglobulin, Urine	*24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0099408	Aluminum, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0080044	Amino Acids Quantitative, Urine	First-morning void	Two 4 mL aliquots	Critical Frozen	None	Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0080103	Aminolevulinic Acid (ALA), Urine	Random or *24-hour	4 mL aliquot in amber tube	Refrigerated	None	Refrigerate 24-hour specimen during collection. Protect from strong light. Submit specimen in an ARUP Amber Transport Tube (supply #13654).
0020471	Amylase, Urine	*24-hour or timed	4 mL	Refrigerated	Adjust pH to $\geq 6$ by adding 5% NaOH	Refrigerate 24-hour specimen during collection.
0089110	Anabolic Steroids Panel	Random	40 mL	Refrigerated	None	

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0099409	Antimony, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0091580	Aromatic Primary Amines, Urine	End of shift	2 mL	Room Temperature	None	Collect sample at end of shift at the end of work week.
0020734	Arsenic, Fractionated, Urine	Random or *24-hour	10 mL	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in ARUP Trace Element-Free Transport Tubes (supply #43116).
0025000	Arsenic, Urine with Reflex to Fractionated	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0095227	Arylsulfatase A, Urine	*24-hour	10 mL	Refrigerated	None	
2002464	Bence Jones Protein Detection, Quantitation and Characterization with Reflex to Quantitative Free Kappa and Lambda Light Chains, Urine	*24-hour	Two 4 mL aliquots	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0050161	Bence Jones Protein, Qualitative Free Kappa & Lambda Light Chains, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0050618	Bence Jones Protein, Quantitative Free Kappa & Lambda Light Chains, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0050689	Bence Jones Protein, Quantitative Free Kappa Light Chains, Urine	*24-hour	Two 4 mL aliquots	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0050682	Bence Jones Protein, Quantitative Free Lambda Light Chains, Urine	*24-hour	Two 4 mL aliquots	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0091154	Beryllium, Urine	End of shift	3 mL	Refrigerated	None	Collect in a trace metal-free or acid-washed plastic container. Submit specimen in an ARUP Trace Element-Free Transport Tube (supply #43116).
0080432	Beta-2 Microglobulin, Urine	Random	3 mL	Frozen	If pH is > 8, lower pH to 6-8 by adding 1M HCL. If pH < 6, increase pH to 6-8 by adding 5% NaOH.	Record the pH on the transport tube and test request form.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0020245	Bicarbonate (HCO <sub>3</sub> ), Urine	Random	4 mL	Critical Frozen	None	Random urine in sealed container. Mix immediately upon collection and remove aliquot. Do not expose to air.
0099410	Bismuth, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
2002310	BK Virus, Quantitative PCR, Urine	Random	1 mL	Frozen	None	Critical Sterile.
8100500	Bladder Tumor Associated Antigen	Random	2 mL	Refrigerated	None	
2002926	Blastomyces dermatitidis Antigen EIA	Random	2 mL	Refrigerated	None	
0091331	Boron, Urine	Random	Two 4 mL aliquots	Refrigerated	None	Collect urine in a trace metal-free or acid-washed plastic. Submit specimen in an ARUP Trace Element-Free Transport Tube (supply #43116).
0096065	Bretylium, Urine	Random	2 mL	Ambient	None	
0025040	Cadmium, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0025013	Cadmium Exposure Panel - OSHA	Beginning of work shift	<b>β-2-Microglob.</b> 2 mL <b>Cadmium</b> Two 4 mL aliquots in Trace Element-Free tubes <b>Creatin.</b> 3 mL.	Frozen and Refrigerated	<b>β-2-Microglobulin aliquot:</b> Adjust pH to 6-8 with 1M HCl or 5% NaOH. Freeze immediately. <b>Cadmium aliquot:</b> Add 0.1 mL of 12M HNO <sub>3</sub> to aliquot. Ship refrigerated. <b>Creatinine aliquot:</b> No pH adjustment. Ship refrigerated.	To avoid contamination, collect specimens at the beginning of work shift. Blood and urine should be collected the same day. Label each aliquot with appropriate test name.
0020472	Calcium, Urine	Random or *24-hour	3 mL	Refrigerated	Adjust pH to 1.5-2 by adding 6M HCl.	Refrigerate 24-hour specimen during collection.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0081308	Carnitine, Free & Total, Urine	Random	5 mL	Critical Frozen	None	Freeze specimen immediately.
0081309	Carnitine, Free, Urine	Random	5 mL	Critical Frozen	None	Freeze specimen immediately.
0081307	Carnitine, Total, Urine	Random	5 mL	Critical Frozen	None	Freeze specimen immediately.
0080407	Catecholamines Fractionated by LC-MS/MS, Urine Free	Random or *24-hour	4 mL	Refrigerated	Preservation enhanced by adjusting pH to 2-3 with 6M HCl.	Refrigerate 24-hour specimen during collection.
0060241	<i>Chlamydia trachomatis</i> & <i>Neisseria gonorrhoeae</i> by Amplified Detection (APTIMA®)	Random	2 mL minimum	Refrigerated	None	Collect in APTIMA® Combo 2 Assay transport media (supply #28908).
0060243	Chlamydia trachomatis by Amplified Detection (APTIMA®)	Random	2 mL	Refrigerated	None	Collect in APTIMA® Combo 2 Assay transport media (supply #28908).
0020850	Chloride, Urine	Random or *24-hour	1 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0025068	Chromium, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0020852	Citric Acid, Urine	Random or *24-hour	4 mL	Refrigerated	Adjust pH to $\leq 2$ by adding 6M HCl.	Refrigerate 24-hour specimen during collection.
0025032	Cobalt, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0020461	Copper, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0097222	Cortisol Urine Free by LC-MS/MS	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0092100	Cortisol/Cortisone Urine Free by LC-MS/MS	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0081121	C-Peptide, 24-Hour Urine	Random or *24-hour	2 mL	Frozen	None	Refrigerate 24-hour specimen during collection.
2002343	Creatine, Urine	Random	2 mL	Frozen	None	Freeze urine as soon as possible after collection.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
2002333	Creatine Disorders Panel, Urine	Random or timed	2 mL	Frozen	None	Freeze urine as soon as possible after collection. Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0020474	Creatinine Clearance, Urine	*24-hour	3 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection. 1 mL plasma or serum, refrigerated is also required.
0020473	Creatinine, 24-Hour Urine	Random or *24-hour	3 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0070181	Cyclic AMP, Nephrogenous	Random or timed	5 mL	Frozen	None	1 mL plasma, frozen is also required. Separate plasma from cells and freeze ASAP.
0070485	Cyclic AMP, Urine	Random preferred or *24-hour	5 mL	Frozen	None	Collect in container with 10 mL 6M HCl. Refrigerate 24-hour specimen during collection.
0081106	Cystine Quantitative, Urine	Timed or *24-hour	Two 4 mL aliquots	Critical Frozen	None	Refrigerate timed specimen during collection. Freeze urine as soon as possible after collection. Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0081105	Cystinuria Panel	Random	Two 4 mL aliquots	Critical Frozen	None	Freeze urine as soon as possible after collection. Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0070212	Deoxypyridinoline Crosslinks	First morning void	3.5 mL	Frozen	None	
0091258	Diuretic Survey, Urine	Random	10 mL	Room Temperature	None	
	Drugs of Abuse Panel, Urine - Screen Only	Random	4 mL	Refrigerated	None	Multiple tests available. Refer to the test directory at <a href="http://www.aruplab.com">www.aruplab.com</a>
	Drugs of Abuse Panel, Urine - Screen with Reflex to Confirmation/Quantitation	Random	Two 4 mL aliquots	Refrigerated	None	
	Drugs of Abuse Confirmation/Quantitation, Urine	Random	4 mL	Room Temperature	None	
0080351	Ehlers-Danlos Syndrome Type VI Screen	First morning void	4 mL	Frozen	None	Random specimens are also acceptable.
0020498	Electrolytes, Urine	Random or *24-hour	1 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0092254	Estronex™ Profile	First morning void	13 mL	Critical Frozen	None	Submit specimen in Estronex Tube (supply #40478).

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0020240	Fat, Urine Qualitative	Random	5 mL	Refrigerated	None	
0091515	Fluoride, Urine	Random	6 mL	Refrigerated	None	Collect sample in a trace metal-free or acid-washed plastic container.
0091509	Formic Acid, Urine	Random	5 mL	Room Temperature	None	Collect urine prior to the last shift of the work week.
0091161	Gamma-Hydroxybutyric Acid, Urine	Random	5 mL	Refrigerated	None	
0020476	Glucose, Urine	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
2001510	Glutarylcarntine Quantitative, Urine	Random	2.5 mL	Critical Frozen	None	Freeze urine immediately after collection. Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0090665	Gold, Urine	Random	1.0 mL	Refrigerated	None	Collect sample in a trace metal-free or acid-washed plastic container.
0099475	Heavy Metals Panel 3, Urine with Reflex to Arsenic Fractionated	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0020572	Heavy Metals Panel 4, Urine with Reflex to Arsenic Fractionated	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0025055	Heavy Metals Panel 6, Urine with Reflex to Arsenic Fractionated	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0020221	Hemoglobin, Urine	Random	4 mL	Frozen	None	Centrifuge sample. Send urine free from cells and sediment.
0020222	Hemosiderin, Urine	First morning void	4.5 mL	Frozen	None	Random specimens are also acceptable.
0091175	Hippuric Acid, Urine	End of shift	2 mL	Refrigerated	None	
0070038	Histamine, Urine	Random or *24-hour	4 mL	Critical Frozen	None	Collect in plastic container. Refrigerate 24-hour specimen during collection.
0060730	<i>Histoplasma</i> Antigen by EIA, Urine	Random	2 mL	Refrigerated	None	Submit specimen according to Biological Substance, Category B, shipping guidelines.
0080413	Homocystine Quantitative, Urine	Random or *24-hour	5 mL	Frozen	None	Refrigerate 24-hour specimen during collection.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0080422	Homovanillic Acid (HVA), Urine	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0080328	Hydroxyproline, Total Urine	*24-hour	5 mL	Frozen	None	Refrigerate 24-hour specimen during collection.
0080403	Indicans, Urine Qualitative	Random	Two 4 mL aliquots	Frozen	None	
0092487	Iodine, 24 Hour, Urine	*24-hour	10 mL	Refrigerated	None	Collect in plastic container with no metal cap or glued insert.
2002992	Iodine, Random, Urine	Random	2 mL	Refrigerated	None	Collect in plastic container with no metal cap or glued insert.
2004782	Iron, Random Urine	Random	2 mL	Refrigerated	None	Collect in plastic container.
0092482	Iron, 24-Hour Urine	*24-hour	10 mL	Refrigerated	None	Collect in plastic container with no metal cap or glued insert. Refrigerate 24-hour specimen during collection.
0020843	Kidney Stone Risk Panel, Urine	*24-hour, 4 separate aliquots	Four 4 mL aliquots.	Frozen	<b>1st aliquot:</b> Dispense 4 mL of specimen into the Sulfamic Acid Tube. Mix well, then freeze. <b>2nd aliquot:</b> Dispense 4 mL of specimen into the Sodium Carbonate Tube. Mix well, then freeze. <b>3rd aliquot:</b> Dispense 4 mL of specimen into an Unpreserved Tube. Mix well, then freeze. <b>4th aliquot:</b> Dispense 4 mL of specimen into an Unpreserved Tube. Mix well, then freeze.	Refrigerate 24-hour specimen during collection. Use Kidney Stone/Supersaturation Urine Collection Kit (ARUP supply# 46007).

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0020805	Kidney Stone Risk Panel II, Urine	*24-hour, 4 separate aliquots	Four 4 mL aliquots.	Frozen	<b>1st aliquot:</b> Dispense 4 mL of specimen into the Sulfamic Acid Tube. Mix well, then freeze. <b>2nd aliquot:</b> Dispense 4 mL of specimen into the Sodium Carbonate Tube. Mix well, then freeze. <b>3rd aliquot:</b> Dispense 4 mL of specimen into an Unpreserved Tube. Mix well, then freeze. <b>4th aliquot:</b> Dispense 4 mL of specimen into an Unpreserved Tube. Mix well, then freeze.	Refrigerate 24-hour specimen during collection. Use Kidney Stone/Supersaturation Urine Collection Kit (ARUP supply# 46007).
0025060	Lead, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0070322	<i>Legionella pneumophila</i> Antigen, Urine	Random	4 mL	Refrigerated		
0020147	Lipase, Urine	Timed or *24-hour	10 mL	Refrigerated	If pH is <6, adjust pH to 6 by adding 5% NaOH (approximately 2 mL per liter). Mix well. Amylase is not stable in acidified samples (pH < 6) and decreases of up to 30% may occur.	Refrigerate specimen during collection.
0050368	Lysozyme, Urine	Random	3 mL	Refrigerated	None	



## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0020477	Magnesium, Urine	Random or *24-hour	4 mL	Refrigerated	Adjust pH to 1 by adding 6M HCl.	Refrigerate 24-hour specimen during collection.
0025070	Manganese, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0020226	Melanin, Urine	Random	4.5 mL in amber tube.	Critical Frozen	None	Protect from strong light. Submit specimen in an ARUP Amber Transport Tube (supply #13654).
0025050	Mercury, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0080436	Metanephrines, Urine	Random or *24-hour	4 mL	Refrigerated	Preservation enhanced by adjusting pH to 2-3 with 6M HCl.	Refrigerate 24-hour specimen during collection.
0091477	Methylhippuric Acid, Urine	End of shift.	4 mL	Room Temperature	None	
0083918	Methylmalonic Acid (MMA) Quantitation, Urine	Random or *24-hour	4 mL	Frozen	None	Refrigerate 24-hour specimen during collection.
0050203	Microalbumin, Urine	Random, timed or *24-hour	1 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0081352	Mucopolysaccharides Screen - Electrophoresis & Quantitation, Urine	Morning void preferred.	20 mL	Frozen	None	Freeze specimen immediately.
0081357	Mucopolysaccharides, Quantitative, Urine	Morning void preferred.	10 mL	Frozen	None	Freeze specimen immediately.
0070227	Myoglobin Clearance	4 to *24-hour urine collection.	1 mL	Frozen	Adjust pH to 8-9 by adding 10% Na <sub>2</sub> CO <sub>3</sub> .	1 mL serum frozen is also required.
0020223	Myoglobin, Urine	Random or *24-hour	1 mL	Refrigerated	Adjust pH to 8-9 by adding 10% Na <sub>2</sub> CO <sub>3</sub> .	Refrigerate 24-hour specimen during collection.
0060244	Neisseria gonorrhoeae by Amplified Detection (APTIMA®)	Random	2 mL	Refrigerated	None	Collect in APTIMA® Combo 2 Assay transport media. (supply #28908).
0025045	Nickel, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0092140	Nitrogen, Total, Urine	*24-hour required	10 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0080281	NMP22®	Single void between midnight and noon	5 mL stabilized urine	Frozen	Add urine immediately to NMP22® Urine Stabilizer Vial. ARUP supply #12594.	Stabilized specimen should be blue/green in color.
0070062	N-Telopeptide, Cross-Linked, Urine	*24-hour or second-morning void	1 mL	Frozen	None	Refrigerate 24-hour specimen during collection.
0098389	Organic Acids, Urine	Random	10 mL	Critical Frozen	None	Freeze specimen immediately. Clinical information is needed for appropriate interpretation: complete Biochemical Genetics Patient History Form and submit with specimen.
0092458	Orotic Acid and Orotidine, Urine	First-morning void preferred or random	2 mL	Critical Frozen	None	Freeze specimen immediately.
0020482	Oxalate, Urine	*24-hour	4 mL	Refrigerated	Adjust pH to 1.5-2 by adding 6M HCl	Refrigerate 24-hour specimen during collection.
2001999	PCA3 - Prostate Cancer Biomarker	Random urine according to PCA3 specimen collection instructions	Two 2 mL aliquots	Frozen	None	Order PCA3 kit online through eSupply or ARUP Client Services at (800) 522-2787 (supply #45682). <b>Ship Monday-Wednesday only.</b>
0091260	Phenol Exposure, Urine	End of work shift.	4 mL	Refrigerated	None	Preservative-free urine specimens are recommended.
0020478	Phosphorus, Urine	Random or *24-hour	3 mL	Frozen	Adjust pH to 1.5-2 by adding 6M HCl	Refrigerate 24-hour specimen during collection.
0080260	Porphobilinogen (PBG), Urine	Random or *24-hour	Two 4 mL aliquots in amber tube	Frozen	None	Refrigerate 24-hour specimen during collection. Protect from strong light. Submit specimen in two ARUP Amber Transport Tubes (supply #13654).
2002181	Porphyrins & Porphobilinogen (PBG), Urine	Random or *24-hour	Two 4 mL aliquots in amber tube	Frozen	None	Refrigerate 24-hour specimen during collection. Protect from strong light. Submit specimen in two ARUP Amber Transport Tubes (supply #13654).
2002058	Porphyrins, Fractionation & Quantitation, Urine	Random or *24-hour	4 mL in amber tube	Frozen	None	Refrigerate 24-hour specimen during collection. Protect from strong light. Submit specimen in an ARUP Amber Transport Tube (supply #13654).
0020849	Potassium, Urine	Random or *24-hour	1 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0020479	Protein, Total, Urine	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0070213	Pyridinium Crosslinks (Total)	First Morning void.	3.5 mL	Frozen	None	
0080342	Pyridinoline & Deoxypyridinoline by HPLC	First Morning void.	Two 4 mL aliquots	Frozen	None	
0025067	Selenium, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0091077	Silicon, Urine	Random	6 mL	Refrigerated	None	Collect in a trace metal-free or acid-washed container.
0091228	Silver, Urine	Random	1 mL in foil-wrapped Trace Element-Free Transport Tube	Refrigerated	None	Collect in a trace metal-free container. Protect from strong light. Submit specimen in a foil-wrapped ARUP Trace Element-Free Transport Tube (supply #43116).
0020851	Sodium, Urine	Random or *24-hour	1 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0060228	<i>Streptococcus pneumoniae</i> Antigen, Urine	Random	4 mL	Refrigerated	None	Submit specimen according to Biological Substance, Category B, shipping guidelines.
0081102	Sulfate, Urine	*24-hour	4 mL	Critical Frozen	None	Refrigerate 24-hour specimen during collection.
0091100	Sulfonylurea Hypoglycemics Panel (Quantitative), Urine	Random	5 mL	Refrigerated	None	
0025009	Tellurium, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
2004772	Testosterone, Urine	*24-hour	5 mL	Critical Frozen	None	Refrigerate 24-hour specimen during collection.
0025019	Thallium, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).
0091423	Tin Total, Urine	Random	4 mL	Room Temperature	None	Collect urine in trace metal-free or acid-washed plastic container.
0091433	Titanium, Urine	Random	1 mL	Refrigerated	None	Collect urine in trace metal-free or acid-washed plastic container.
0020480	Urea Nitrogen, Urine	Random or *24-hour	3 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0020481	Uric Acid, Urine	Random or *24-hour	3 mL	Refrigerated	Adjust pH to >8 by adding 5% NaOH.	Refrigerate 24-hour specimen during collection.

## Urine Preservative and Transport List

Test Code	Test Name	Collection Time	Aliquot	Transport Temperature	Preservative	Comments
0081145	Urine Supersaturation Profile	*24-hour	Four 4 mL aliquots.	Frozen	<b>1st aliquot:</b> Dispense 4 mL of specimen into the Sulfamic Acid Tube. Mix well, then freeze. <b>2nd aliquot:</b> Dispense 4 mL of specimen into the Sodium Carbonate Tube. Mix well, then freeze. <b>3rd aliquot:</b> Dispense 4 mL of specimen into an Unpreserved Tube. Mix well, then freeze. <b>4th aliquot:</b> Dispense 4 mL of specimen into an Unpreserved Tube. Mix well, then freeze.	Refrigerate 24-hour specimen during collection. Use Kidney Stone/Supersaturation Urine Collection Kit (ARUP supply# 46007).
8100600	UroVysion™ FISH	Second-morning, clean-catch void	35 mL	Refrigerated	Mix voided urine 2:1 with Saccomanno or PreservCyt® fixative and transfer to a screw-top transport tube.	UroVysion™ FISH Collection Kits fixative can be ordered through ARUP Client Services (supply #41440). Clinical information is needed for appropriate interpretation: complete Cytology Request Form and submit with specimen.
0091592	Vanadium Quantitation, Urine	End of last shift at the end of the work week	3 mL	Refrigerated	None	Collect in a trace metal-free or acid-washed container.
0080470	Vanillylmandelic Acid (VMA) & Homovanillic Acid (HVA), Urine	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0080421	Vanillylmandelic Acid (VMA), Urine	Random or *24-hour	4 mL	Refrigerated	None	Refrigerate 24-hour specimen during collection.
0091230	Warfarin, Urine	Random	2 mL	Room Temperature	None	
0020462	Zinc, Urine	Random or *24-hour	Two 4 mL aliquots	Refrigerated	**None if tested within 14 days of collection.	Collect in plastic container. Refrigerate 24-hour specimen during collection. Submit specimen in two ARUP Trace Element-Free Transport Tubes (supply #43116).