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0020046	OSMO	Osmolality, Serum or Plasma					x														
0020228	UOSMO	Osmolality, Urine					x														
0020413	LDISO	Lactate Dehydrogenase, Isoenzymes					x														
0050138	ANTI-ISLET	Islet Cell Cytoplasmic Antibody, IgG			x																
0050591	GM1 PAN	Ganglioside (GM1) Antibodies, IgG and IgM					x														
0051175	GALTPAN	Galactosemia (GALT) Enzyme Activity and 9 Mutations			x																
0051176	GALTDNA	Galactosemia, (GALT) 9 Mutations			x																
0051265	AD PCR FE	Achondroplasia (FGFR3) 2 Mutations, Fetal			x																
0051415	AJP	Ashkenazi Jewish Diseases, 16 Genes			x																
0080216	CATE PF	Catecholamines Fractionated, Plasma					x														
0090010	ALPR	Alprazolam								x											
0090015	Amikacin	Amikacin, Random Level (Change effective as of 01/21/25: Refer to 3018754 in the January Hotline)																		x	
0090074	NORT HPLC	Nortriptyline					x														
0090102	DOXEPIN	Doxepin and Metabolite, Serum or Plasma					x														
0090106	PROTRIP	Protriptyline, SP			x		x														

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0090130	Gentamicin	Gentamicin, Random Level(Inactive as of 01/21/25)																			x
0090157	DESIP/IMIP	Imipramine and Desipramine, Serum or Plasma					x														
0090158	AMIT/NORT	Amitriptyline and Nortriptyline, Serum or Plasma					x														
0090270	Tobramycin	Tobramycin, Random Level(Change effective as of 01/21/25: Refer to 3018760 in the January Hotline)																		x	
0090285	Vancomycin	Vancomycin, Random Level(Change effective as of 01/21/25: Refer to 3018771 in the January Hotline)																		x	
0090295	Amikacin Peak	Amikacin, Peak Level (Change effective as of 01/21/25: Refer to 3018769 in the January Hotline)																		x	
0090300	Amikacin Trough	Amikacin, Trough Level (Change effective as of 01/21/25: Refer to 3018756 in the January Hotline)																		x	
0090305	Gentamicin Peak	Gentamicin, Peak Level (Inactive as of 01/21/25)																			x

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0090310	Gentamicin Trgh	Gentamicin, Trough Level(Inactive as of 01/21/25)																			x
0090315	Tobramycin Pk	Tobramycin, Peak Level (Inactive as of 01/21/25)																			x
0090320	Tobramycin Tr	Tobramycin, Trough Level(Change effective as of 01/21/25: Refer to 3018762 in the January Hotline)																		x	
0090325	Vancomycin Peak	Vancomycin, Peak Level (Inactive as of 01/21/25)																			x
0090330	Vancomycin Tr	Vancomycin, Trough Level(Change effective as of 01/21/25: Refer to 3018758 in the January Hotline)																		x	
0092001	PGOID PAN	Pemphigoid Antibody Panel			x		x														
0092107	PARA PEMPH	Paraneoplastic Pemphigus (Paraneoplastic Autoimmune Multiorgan Syndrome) Screening Antibodies by IIF			x		x	x													
0092283	HG FACTOR	Pemphigoid Gestationis, Complement-Fixing Basement Membrane Antibodies (Herpes Gestationis Factor)			x		x	x													

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0092316	CONFTHC M	Tetrahydrocannabinol (THC) Metabolite, Meconium, Qualitative		x	x				x		x										
0092566	BP180 230G	Bullous Pemphigoid (BP180 and BP230) Antibodies, IgG by ELISA			x	x	x														
0092572	CUTDIF	Direct Immunofluorescence, Tissue Biopsy (Cutaneous, Mucosal, Epithelial)					x														
0098830	CR S	Chromium, Serum					x														
0099165	GLUCA	Glucagon			x																
0099265	MANG	Manganese, Serum					x														
0099270	LIVER-KID	Liver-Kidney Microsome Antibody, IgG			x																
0099336	CLOMIP	Clomipramine and Metabolite, Serum or Plasma					x														
2002653	F TAML MDS	Acute Myelogenous Leukemia (AML) with Myelodysplastic Syndrome (MDS) or Therapy-Related AML, by FISH (Inactive as of 1/21/2025)																			x
2007549	TADQNT SP	Tricyclic Antidepressants, Quantitative, Serum or Plasma					x														

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2010138	AML1-ETO Q	RUNX1::RUNX1T1 (AML1::ETO) t(8;21) Detection, Quantitative		x							x				x						
2010905	COLLAG 7	Collagen Type VII Antibody, IgG by ELISA			x	x	x														
2011114	INV 16 QNT	CBFB::MYH11 inv(16) Detection, Quantitative		x							x				x						
2011487	DESIPRAMIN	Desipramine, Serum or Plasma by Tandem Mass Spectrometry					x														
2011699	AQP4 CSF	Aquaporin-4 (AQP4) Antibody, IgG by CBA-IFA With Reflex to Titer, CSF			x																
2011828	PLA2R	Phospholipase A2 Receptor (PLA2R) Antibody, IgG with Reflex to Titer			x																
2012259	KS U MS	Keratan Sulfate, Quantitative by LC-MS/MS, Urine					x														
2013320	AQP4 SER	Aquaporin-4 (AQP4) Antibody, IgG by CBA-IFA With Reflex to Titer, Serum			x																
2013662	CF VAR FE	Cystic Fibrosis (CFTR) Expanded Variant Panel, Fetal			x																

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2013990	POLY MYO	Polymyositis Panel (Change effective as of 01/21/25: Refer to 3018868 in the January Hotline)																		x	
3000256	THC QQQ CD	Tetrahydrocannabinol (THC) Metabolite, Umbilical Cord Tissue, Qualitative		x					x		x										
3001410	BMZ AB PAN	Basement Membrane Zone Antibody Panel			x		x														
3001781	MYOS EXT	Extended Myositis Panel (Change effective as of 01/21/25: Refer to 3018867 in the January Hotline)																		x	
3001782	DERM PAN	Dermatomyositis Autoantibody Panel (Change effective as of 01/21/25: Refer to 3018870 in the January Hotline)																		x	
3001783	COMBI PAN	Dermatomyositis and Polymyositis Panel (Change effective as of 01/21/25: Refer to 3018866 in the January Hotline)																		x	

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3001784	ILD PANEL	Interstitial Lung Disease Autoantibody Panel (Change effective as of 01/21/25: Refer to 3018869 in the January Hotline)																		x	
3002037	DISACT	Disaccharidase in Tissue			x																
3002912	FTULARPANR	Francisella tularensis Antibodies, IgG and IgM with Reflex to Agglutination (Change effective as of 01/21/25: Refer to 3018856 in the January Hotline)																		x	
3004753	NUT COMP	Allergen, Food, Nut Component Panel IgE (Change effective as of 01/21/25: Refer to 3018650 in the January Hotline)																		x	
3006371	C PAN_THC	Drug Detection Panel and THC Metabolite, Umbilical Cord Tissue, Qualitative						x		x	x										
3006373	M PAN_THC	Drug Detection Panel and THC Metabolite, Meconium, Qualitative			x	x			x	x	x										
3016639	RBCGENOFE	Red Blood Cell Antigen Genotyping, Fetal			x																
3016640	RHD FE	RhD Gene (RHD) Copy Number, Fetal			x																

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3016673	HPAGENO FE	Platelet Antigen Genotyping Panel, Fetal			x																
3016676	KELGENO FE	Kell K/k (KEL) Antigen Genotyping, Fetal			x																
3016679	RHCGENO FE	RhC/c (RHCE) Antigen Genotyping, Fetal			x																
3016682	RHEGENO FE	RhE/e (RHCE) Antigen Genotyping, Fetal			x																
3016767	ANTI-PLA2R	Anti-Phospholipase A2 Receptor (PLA2R) Antibody, IgG by ELISA					x														
3017721	TRPS1 IHC	TRPS1 by Immunohistochemistry	x																		
3018507	KLHL11 SER	Kelch-Like Protein 11 Antibody, IgG by CBA-IFA With Reflex to Titer, Serum	x																		
3018508	KLHL11 CSF	Kelch-Like Protein 11 Antibody, IgG by CBA-IFA, With Reflex to Titer, CSF	x																		
3018631	BER E 1	Allergen, Food, Brazil Nut Component Ber e 1, IgE	x																		
3018638	HAZELNUT R	Allergen, Food, Hazelnut With Reflex to Components, IgE	x																		
3018639	BRZL NUT R	Allergen, Food, Brazil Nut With Reflex to Component, IgE	x																		
3018650	NUT COM	Allergen, Food, Nut Components Panel, IgE	x																		

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3018754	AMIKA RA	Amikacin Level, Random, Serum	x																		
3018756	AMIKA TR	Amikacin Level, Trough, Serum	x																		
3018758	VANCOTR	Vancomycin Level, Trough, Serum	x																		
3018760	TOBRAM R	Tobramycin Level, Random, Serum	x																		
3018762	TOBRA TR	Tobramycin Level, Trough, Serum	x																		
3018769	AMIK PEAK	Amikacin Level, Peak, Serum	x																		
3018771	VANCO RAN	Vancomycin Level, Random, Serum	x																		
3018776	HBSAGRDA BQ	Hepatitis B Virus Surface Antigen With Reflex to Confirmation and Reflex to Hepatitis Delta Virus Antibody by ELISA With Reflex to Hepatitis Delta Virus by Quantitative PCR	x																		
3018799	TNUT PAN R	Allergen, Food, Tree Nuts With Reflex to Components, IgE	x																		
3018849	FILARIABLD	Filaria Screen, Whole Blood With Reflex to Parasites Smear (Giemsa Stain), Blood	x																		
3018856	F TULARPAN	Francisella tularensis Antibodies, IgG and IgM	x																		

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3018866	COMBI PAN2	Dermatomyositis and Polymyositis Panel	x																		
3018867	MYOS EXT2	Extended Myositis Panel	x																		
3018868	POLY MYO2	Polymyositis Panel	x																		
3018869	ILD PANEL2	Interstitial Lung Disease Autoantibody Panel	x																		
3018870	DERM PAN2	Dermatomyositis Autoantibody Panel	x																		

TEST CHANGE

Osmolality, Serum or Plasma

0020046, OSMO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube or plasma separator tube.
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 0.5 mL serum or plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 6 months
Methodology:	Freezing Point
Performed:	Sun-Sat
Reported:	1-3 days ~~Within 24 hours~~
Note:	
CPT Codes:	83930
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

0-16 years: 271-296 mOsm/kg
17 years and older: 280-303 mOsm/kg

TEST CHANGE

Osmolality, Urine

0020228, UOSMO

Specimen Requirements:	
Patient Preparation:	
Collect:	Urine.
Specimen Preparation:	Transfer 1 mL aliquot from a well-mixed urine to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL)
Transport Temperature:	Frozen.
Unacceptable Conditions:	Urine collected with preservatives.
Remarks:	
Stability:	Ambient: 24 hours; Refrigerated: 1 week; Frozen: 6 months
Methodology:	Freezing Point
Performed:	Sun-Sat
Reported:	1-3 days ~~Within 24 hours~~
Note:	
CPT Codes:	83935
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

0-30 days: 50-645 mOsm/kg
1 month-16 years: 50-1500 mOsm/kg
17 years and older: 50-800 mOsm/kg

TEST CHANGE

Lactate Dehydrogenase, Isoenzymes

0020413, LDISO

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube~~Separator Tube~~ (SST) or plain red~~Plain Red~~.
Specimen Preparation:	Do not refrigerate or freeze. Allow specimen to clot completely at room temperature. Separate from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.6 mL)
Transport Temperature:	Room temperature.
Unacceptable Conditions:	Hemolyzed specimens.
Remarks:	
Stability:	After separation of cells: Ambient: 1 week; Refrigerated: Unacceptable; Frozen: Unacceptable
Methodology:	Quantitative Enzymatic Assay/Electrophoresis
Performed:	Sun-Sat
Reported:	1-3~~2~~ days
Note:	LD-1 and LD-2 are elevated in hemolyzed specimens and serum which has not been separated from cells. LD-3, LD-4, and LD-5 are labile at low temperatures, and are erroneously low in specimens that have been refrigerated or frozen.
CPT Codes:	83625; 83615
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

LD-1: 14-27%
LD-2: 29-42%
LD-3: 18-30%
LD-4: 8-15%
LD-5: 6-23%

Lactate Dehydrogenase, Total:
0-1 month: 200-465 U/L
2-17 months: 200-450 U/L
18 months-10 years: 165-430 U/L
11-16 years: 127-287 U/L
17 years and older: 105-230 U/L

TEST CHANGE

Islet Cell Cytoplasmic Antibody, IgG

0050138, ANTI-ISLET

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer1 mL serum to an ARUP Standard Transport Tube. (Min: 0.5015 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma. CSF. Contaminated, hemolyzed, or severely lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month.year (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Sun-Sat
Reported:	1-3 days
Note:	
CPT Codes:	86341
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Islet cell antibodies (ICAs) are associated with type 1 diabetes (T1D), an autoimmune endocrine disorder. ICAs may be present years before the onset of clinical symptoms. To calculate Juvenile Diabetes Foundation (JDF) units: multiply the titer x 5 (1:8 8 x 5 = 40 JDF Units).

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

Reference Interval:

< 1:4 No antibody detected.

TEST CHANGE

Ganglioside (GM1) Antibodies, IgG and IgM

0050591, GM1 PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.3 mL serum to an ARUP standard transport tube. ~~Standard Transport Tube.~~ (Min: 0.1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Room temperature specimens. Plasma, CSF, or other body fluids. Contaminated, heat-inactivated, hemolyzed, icteric, or severely lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year.
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay
Performed:	Tue, Thu, Sat ~~Mon, Wed, Fri~~
Reported:	1-7~~4~~ days
Note:	
CPT Codes:	83516 x2
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Ganglioside antibodies are associated with diverse peripheral neuropathies. Elevated antibody levels to ganglioside-monosialic acid (GM1) are associated with motor or sensorimotor neuropathies, particularly multifocal motor neuropathy. Anti-GM1 may occur as IgM (polyclonal or monoclonal) or IgG antibodies. These antibodies may also be found in patients with diverse connective tissue diseases as well as normal individuals. These tests by themselves are not diagnostic and should be used in conjunction with other clinical parameters to confirm disease.

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

Component	Interpretation
GM1 Antibody IgG	29 IV or less: Negative 30-50 IV: Equivocal 51-100 IV: Positive 101 IV or greater: Strong Positive
GM1 Antibody, IgM	29 IV or less: Negative 30-50 IV: Equivocal 51-100 IV: Positive 101 IV or greater: Strong Positive

Reference Interval:

Test Number	Components	Reference Interval		
	GM1 Antibody, IgG	50 IV or less		
	GM1 Antibody, IgG			
		Component(s)	Interpretation	
		GM1 Antibody IgG	29 IV or less 30-50 IV 51-100 IV 101 IV or greater	Negative Equivocal Positive Strong Positive
	GM1 Antibody, IgM	50 IV or less		

TEST CHANGE

Galactosemia (GALT) Enzyme Activity and 9 Mutations

0051175, GALTPAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA) or~~),~~ pink (K2EDTA)~~), or green (sodium heparin).~~
Specimen Preparation:	~~Do not freeze.~~ Transport 2~~10~~ mL whole blood~~.~~ (Min: 1~~3~~ mL).~~)~~
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Frozen or room temperature specimens.
Remarks:	
Stability:	Room temperature: Unacceptable; Refrigerated: 5 days; Frozen: Unacceptable
Methodology:	Enzymatic Assay/Polymerase Chain Reaction (PCR)/Single Nucleotide Extensions
Performed:	Varies
Reported:	7-10 days
Note:	
CPT Codes:	82775; 81401
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

One U/g Hb is equivalent to one umol/hour/gram of hemoglobin (umol/hr/g Hb).

Refer to report.

Reference Interval:

By report

TEST CHANGE

Galactosemia, (GALT) 9 Mutations

0051176, GALTDNA

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA) or~~),~~ pink (K2EDTA)~~), or green (sodium heparin).~~
Specimen Preparation:	Transport 2 mL whole blood~~.~~ (Min: 1 mL).~~)~~
Transport Temperature:	Refrigerated. Also acceptable: Room temperature~~Ambient~~.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient~~Room temperature~~: 1 week; Refrigerated: 1 month; Frozen: Unacceptable
Methodology:	Polymerase Chain Reaction (PCR)/Single Nucleotide Extensions
Performed:	Varies
Reported:	7-10 days
Note:	This test is offered to individuals with known familial mutation(s).
CPT Codes:	81401
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report	

TEST CHANGE

Achondroplasia (FGFR3) 2 Mutations, Fetal

0051265, AD PCR FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood ~~for maternal cell contamination~~: Lavender (K2 or K3EDTA~~EDTA~~), pink (K2EDTA), or yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container (m~~M~~in: 5 mL). OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND~~Whole blood for~~ maternal whole blood: transport 2~~cell contamination: Transport 3~~ mL whole blood~~.~~ (m~~M~~in: 1 mL)~~.)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes or cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to liability of cells. Maternal whole ~~Whole~~ blood: Room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	Patient History Form is available on the ARUP Web site or by contacting ARUP Client Services.
Stability:	Fetal Specimen: Ambient 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Ambient 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	2-7 days

Note:	
CPT Codes:	81401; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	
Reference Interval:	
By report	

TEST CHANGE

Ashkenazi Jewish Diseases, 16 Genes

0051415, AJP

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood: Lavender (EDTA), pink (K 2 EDTA), or yellow (ACD solution A or B). Fetal specimens: Cultured amniocytes: Two T-25 flasks at 80 percent confluency. OR cultured CVS: Two T-25 flasks at 80 percent confluency. If the client is unable to culture, order ARUP test Cytogenetics Grow and Send (test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301. AND~~WITH~~ maternal whole~~cell contamination specimen: Whole~~ blood: lavender (K2 or K3EDTA~~Lavender (EDTA~~), pink (K2EDTA~~K 2 EDTA~~), or yellow (ACD solution A or B).
Specimen Preparation:	Whole blood: Transport 3 mL whole blood. (Min: 1 mL) Fetal Specimens: Cultured amniocytes OR cultured CVS: Transport two T-25 flasks at 80 percent confluency filled with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND maternal whole blood: transport 2~~Maternal cell contamination specimen: Transport 3~~ mL whole blood~~.~~ (m~~M~~in: 1 mL)~~.)~~
Transport Temperature:	Whole blood~~ or maternal cell contamination specimen~~: Refrigerated. Fetal specimens: Cultured amniocytes OR cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells ANS maternal whole blood: room temperature. Also acceptable: refrigerated.
Unacceptable Conditions:	Plasma or serum. Specimens collected in sodium heparin or lithium heparin tubes. Frozen specimens in glass collection tubes.
Remarks:	
Stability:	Whole blood~~ or maternal cell contamination specimen~~: Ambient: 72 hours; Refrigerated: 1 week; Frozen: unacceptable~~1 month~~ Fetal specimens : Ambient: 48 hours; Refrigerated: Unacceptable; Frozen: Unacceptable AND Maternal whole blood: Ambient: 72 hours; Refrigerated: 1 week. Frozen: Unacceptable.
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring

Performed:	Varies
Reported:	5-10 days
Note:	Cystic fibrosis (CF) carrier testing is NOT included as part of this panel. Please order Cystic Fibrosis (CFTR) Expanded Variant Panel (ARUP test code 2013661) to assess CF carrier status. Any submitted fetal specimens will have Maternal Cell Contamination, Fetal Sample, added on by ARUP. Additional charges will apply.
CPT Codes:	81401, 81209, 81200, 81260, 81242, 81251, 81250, 81479, 81205, 81290, 81400, 81330, 81255
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report Counseling and informed consent are recommended for genetic testing. Consent forms are available online.	
Reference Interval:	

TEST CHANGE

Catecholamines Fractionated, Plasma

0080216, CATE PF

Specimen Requirements:	
Patient Preparation:	Patient should be calm and seated for 15 minutes prior to collection. Alternately, patient may be calm and supine for 30 minutes prior to collection. Drugs and medications may affect results and should be discontinued for 72 hours prior to specimen collection, if possible.
Collect:	Green (sodium or lithium heparin), lavender (EDTA). Collect on ice.
Specimen Preparation:	Specimen should be centrifuged and frozen within one hour (refrigerated centrifuge is preferred but not required). Transfer 3 mL plasma to an ARUP standard transport tube(Min: 1.1 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum or urine.
Remarks:	
Stability:	After separation from cells: Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen at -20 C: 1 month; Frozen at -70 C: 1 year
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-54 days
Note:	Medications may interfere with catecholamines and metabolites. The effect of drugs on catecholamine results may not be predictable. (N Rifai, A R Horvath, and C Wittwer. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics. Sixth edition. St. Louis, Missouri: Elsevier, 2018; Table 63.9.) For optimum assessment, patient should be supine for 30 minutes prior to specimen collection. Children, particularly those under 2 years of age, often show an elevated catecholamine response to stress.
CPT Codes:	82384

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

Interpretive Data:

Small increases in catecholamines (less than 2 times the upper reference limit) are usually the result of physiological stimuli, drugs, or improper specimen collection. Significant elevation of one or more catecholamines (2 or more times the upper reference limit) can result from a neuroendocrine tumor. Measurement of plasma or urine fractionated metanephrines should be used for assessment of suspected pheochromocytoma or paraganglioma.

Lower catecholamine concentrations are observed in specimens collected from supine adults.

To convert to picograms per milliliter (pg/mL), multiply the reported concentration for dopamine by 0.153, epinephrine by 0.183, and norepinephrine by 0.169

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory (aruplab.com).

Supine Reference Intervals	
Dopamine	Less than or equal to 240 pmol/L
Epinephrine	Less than or equal to 265 pmol/L
Norepinephrine	680-3100 pmol/L

Reference Interval:

Test Number	Components	Reference Interval		
	Dopamine			
		18 years and older		
		Seated (15 min)	Less than or equal to 240 pmol/L	
	Epinephrine			
		18 years and older		
		Seated (15 min)	Less than or equal to 330 pmol/L	
	Norepinephrine			
		18 years and older		
		Seated (15 min)	1050-4800 pmol/L	

TEST CHANGE

Alprazolam

0090010, ALPR

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady state concentration.
Collect:	Gray (potassium oxalate/sodium fluoride). Also acceptable: Plain red, green (sodium heparin), lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 2 mL serum or plasma to an ARUP standard transport tube. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Gel separator tubes. Plasma or whole blood collected in light blue (sodium citrate). Hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 1 week; Refrigerated: 2 weeks; Frozen: 3 years (Avoid repeated freeze/thaw cycles)
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Tue, Fri
Reported:	1-7 days
Note:	
CPT Codes:	80346 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Adverse effects may include somnolence, lightheadedness, and muscle tremors.

	Dose-Related Range:
Anxiety	10-40 ng/mL (Dose: 1-4 mg/d)
Phobia & panic	50-100 ng/mL (Dose: 6-9 mg/d)

Toxic	Greater than 100 ng/mL

Reference Interval:

Test Number	Components	Reference Interval
	Alprazolam	10-100 ng/mL

Effective November 18, 2013

	~~Dose-Related Range:~~
~~Anxiety~~	~~10-40 ng/mL (Dose: 1-4 mg/d)~~
~~Phobia & panic~~	~~50-100 ng/mL (Dose: 6-9 mg/d)~~
~~Toxic~~	~~Greater than 100 ng/mL~~

TEST CHANGE

Nortriptyline

0090074, NORT

Specimen Requirements:	
Patient Preparation:	If amitriptyline is administered, order Amitriptyline and Nortriptyline (ARUP test code 0090158). Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Toxic concentrations may cause anticholinergic effects, cardiac abnormalities, and seizures.

Reference Interval:

Therapeutic Range:
50-150 ng/mL
Toxic: > 500 ng/mL

TEST CHANGE

Doxepin and Metabolite, Serum or Plasma

0090102, DOXEPIN

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Toxic concentrations may cause anticholinergic effects and cardiac abnormalities.

Reference Interval:

Effective February 19, 2013

Therapeutic Range	Total (doxepin and nordoxepin): 100-300 ng/mL
Toxic Level	Greater than 500 ng/mL

TEST CHANGE

Protriptyline, SP

0090106, PROTRIP

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks~~5 days~~; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Toxic concentrations may cause hypotension, cardiac abnormalities, seizures, and coma.

Reference Interval:

Therapeutic Range:
70-240 ng/mL
Toxic: > 400 ng/mL

TEST CHANGE

Imipramine and Desipramine, Serum or Plasma

0090157, DESIP/IMIP

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	Report includes individual values for imipramine, desipramine, and total.
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Toxic concentrations may cause anticholinergic effects, drowsiness, and cardiac abnormalities.

Reference Interval:

Effective February 19, 2013

Therapeutic Range	Total (imipramine and desipramine):

	150-300 ng/mL
Toxic Level	Greater than 500 ng/mL

TEST CHANGE

Amitriptyline and Nortriptyline, Serum or Plasma

0090158, AMIT/NORT

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	Report includes individual values for amitriptyline, nortriptyline, and total.
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Toxic concentrations may cause anticholinergic effects, cardiac abnormalities and seizures.

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

Reference Interval:

Effective February 19, 2013

Therapeutic Range	Total (amitriptyline and nortriptyline): 95-250 ng/mL	
Toxic Level	Greater than 500 ng/mL	

TEST CHANGE

Pemphigoid Antibody Panel

0092001, PGOID PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube.
Specimen Preparation:	Transfer 2 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL)
Transport Temperature:	Refrigerated/Ambient~~.~~
Unacceptable Conditions:	Hemolyzed or lipemic specimens. Plasma.
Remarks:	As a general rule, serum specimens should be shipped to the laboratory as soon as possible. Store refrigerated unless shipping promptly (within 2 hours). Transport at ambient temperature to arrive within 7 days. If 7-14 days until received in laboratory, store and ship refrigerated. If greater than 14 days, serum specimens must be stored and shipped frozen.
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Semi-Quantitative Indirect Immunofluorescence (IIF)/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3~~4~~-9 days
Note:	For specimens less than 0.5 mL, call the Immunodermatology Laboratory at 801-581-7139~~(866) 266-5699~~.
CPT Codes:	88346; 88350 x3; 83516 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report	

TEST CHANGE

Paraneoplastic Pemphigus (Paraneoplastic Autoimmune Multiorgan Syndrome) Screening Antibodies by IIF

0092107, PARA PEMPH

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube (SST).
Specimen Preparation:	Transfer 2 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated/ambient~~.~~
Unacceptable Conditions:	Hemolyzed or lipemic specimens. Plasma.
Remarks:	As a general rule, serum specimens should be shipped to the laboratory as soon as possible. Store refrigerated unless shipping promptly (within 2 hours). Transport at ambient temperature to arrive within 7 days. If 7-14 days until received in laboratory, store and ship refrigerated. If greater than 14 days, serum specimens must be stored and shipped frozen.
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Semi-Quantitative Indirect Immunofluorescence (IIF)
Performed:	Varies
Reported:	3-9~~7~~ days
Note:	The methodology is indirect immunofluorescence (IIF) of patient serum with rodent~~on~~ substrates ~~from rodents~~ including rat bladder, mouse bladder, mouse heart, and mouse liver to detect characteristic antibody reactivity: simple columnar epithelial cell surface and basement membrane zone in bladders, intercalated discs in heart, and portal tracts in liver. This test does NOT include IgG envoplakin antibody ELISA testing. Monkey esophagus substrate is included if other concurrent IIF testing does not. For specimens less than 0.5 mL, call the Immunodermatology Laboratory at 801-581-7139.~~866-266-5699.~~ This test should be distinguished from antibody testing of cerebral spinal fluid (CSF) for paraneoplastic neurologic syndromes; 3004510, 3004512, 3004517 are different tests.

CPT Codes:	88346; 88350 x4
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	
Reference Interval:	
By report	

TEST CHANGE

Pemphigoid Gestationis, Complement-Fixing Basement Membrane Antibodies (Herpes Gestationis Factor)

0092283, HG FACTOR

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube (SST).
Specimen Preparation:	Transfer 2 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 1 mL)
Transport Temperature:	Refrigerated/ambient~~.~~
Unacceptable Conditions:	Hemolyzed or lipemic specimens. Plasma.
Remarks:	As a general rule, serum specimens should be shipped to the laboratory as soon as possible. Store refrigerated unless shipping promptly (within 2 hours). Transport at ambient temperature to arrive within 7 days. If 7-14 days until received in laboratory, store and ship refrigerated. If greater than 14 days, serum specimens must be stored and shipped frozen
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Semi-Quantitative Complement Fixation/Indirect Immunofluorescence (IIF)/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	7-14~~5-8~~ days
Note:	The methodology is indirect immunofluorescence (IIF) of patient serum to which ~~with added~~ fresh human complement is added and reacted with~~on~~ human split skin substrate for detection of complement-fixing (herpes gestationis factor) and noncomplement-fixing IgG basement membrane zone antibodies together with IgG BP180 antibody level determination by ELISA ~~in serum~~. For specimens less than 0.5 mL, call the Immunodermatology Laboratory at 801-581-7139~~(866) 266-5699~~.
CPT Codes:	88346; 88350 x3; 83516
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:
Refer to report
Reference Interval:
By report

TEST CHANGE

Tetrahydrocannabinol (THC)Marijuana Metabolite, Meconium, Qualitative

0092316, CONFTHC M

Specimen Requirements:	
Patient Preparation:	
Collect:	All meconium (blackish material) excreted until milk/formula based stool (yellow-green) appears.
Specimen Preparation:	Transport all available meconium (2g is preferred) to routine urine collection cup or Security Kit for Meconium/Umbilical Drug Detection (ARUP supply #51548) available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at 800-522-2787. ~~Transport 0.5 g (equivalent to 1/2 inch cube) for each separate confirmation required. (Min: 0.13 g or 1/4 inch cube)~~
Transport Temperature:	Room temperature.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 1 week; Refrigerated: 3 months; Frozen: 1 year
Methodology:	Qualitative Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
Performed:	Sun-Sat
Reported:	1-4 days
Note:	
CPT Codes:	80349 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

~~Drugs Covered: 9-carboxy-THC~~
Positive cutoff: 5 ng/g
Methodology: Mass spectrometry

This test is designed
~~Meconium begins~~ to ~~form between the 12th and 16th week of gestation. Meconium drug testing can~~ detect and document exposure that occurred~~maternal drug use~~ during approximately the last trimester of a full-term pregnancy,~~4~~ to a common metabolite~~5 months~~ of pregnancy THC (which may be present in cannabis products). Alternative testing is available to detect other drug exposures. The pattern and frequency of drug(s) used by the mother cannot be determined by this

test.~~-~~ A negative result does not exclude the possibility that a mother used drugs during pregnancy. Detection of drugs in meconium~~drug use~~ depends on extent of maternal drug use,~~the quantity and quality of the specimen tested~~ as well as drug stability, unique characteristics~~the pattern and frequency~~ of drug deposition in meconium, and the performance of the analytical method. Drugs administered during labor and deliveryn~~(s) used by mother. The concentration value must be greater than~~ or drugs administered directly to the toinfant after birth may be detected. Detection of drugs in meconium does not insinuate impairment and may not affect outcomes for ~~equal to~~ the infant.~~cutoff to be reported as positive.~~ Interpretive questions should be directed to the laboratory.

This test does not distinguish between the delta-8 and delta-9 forms of THC or their metabolites.For medical purposes only; not valid for forensic use.

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

Reference Interval:

TEST CHANGE

Bullous Pemphigoid (BP180 and BP230) Antibodies, IgG by ELISA

0092566, BP180 230G

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube (SST).
Specimen Preparation:	Transfer 2 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL)
Transport Temperature:	Refrigerated/Ambient~~.~~
Unacceptable Conditions:	Hemolyzed or lipemic specimens. Plasma.
Remarks:	As a general rule, serum specimens should be shipped to the laboratory as soon as possible. Store refrigerated unless shipping promptly (within 2 hours). Transport at ambient temperature to arrive within 7 days. If 7-14 days until received in laboratory, store and ship refrigerated. If greater than 14 days, serum specimens must be stored and shipped frozen.
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-9~~11~~ days
Note:	For specimens less than 0.5 mL, call the Immunodermatology Laboratory at 801-581-7139~~(866) 266-5699~~.
CPT Codes:	83516 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report	

TEST CHANGE

Direct Immunofluorescence, Tissue Biopsy (Cutaneous, Mucosal, Epithelial)

0092572, CUTDIF

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue: skin, mucosa (oral, conjunctival, genital, esophageal), other epithelium (gastrointestinal, respiratory, urinary).
Specimen Preparation:	Transport tissue (optimal 4-6 mm) in Michel's medium (ARUP supply #45462) available online through eSupply using ARUP Connect(TM) or call ARUP Client Services at ~~(~~800~~-)~~ 522-2787. Also acceptable: Zeus tissue fixative. Label container with transport medium type, if not an ARUP-supplied vial.
Transport Temperature:	Room temperature. Also acceptable: Refrigerated.
Unacceptable Conditions:	Formalin-fixed tissue. Frozen in Michel's medium. Solid organs or solid organ tissue. Tissue in container of unknown or unacceptable transport medium. Tissue sections on slides, prestained or unstained.
Remarks:	
Stability:	Ambient: 10 days; Refrigerated: 10 days; Frozen: Unacceptable
Methodology:	Direct Immunofluorescence
Performed:	Varies
Reported:	3-9~~7~~ days
Note:	
CPT Codes:	88346; 88350 x5
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	
Reference Interval:	
By report	

TEST CHANGE

Chromium, Serum

0098830, CR S

Specimen Requirements:	
Patient Preparation:	Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and non-essential over-the-counter medications (upon the advice of their physician).
Collect:	Royal Blue (No Additive).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 2 mL serum to an ARUP Trace Element-Free Transport Tube (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 0.5 mL)
Transport Temperature:	Room temperature. Also acceptable: Refrigerated or frozen.
Unacceptable Conditions:	Plasma. Royal Blue (EDTA) or separator tubes. Specimens that are not separated from the clot within 2 hours. Specimens transported in tubes other than specified.
Remarks:	
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Indefinitely
Methodology:	Quantitative Inductively Coupled Plasma-Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-34 days
Note:	
CPT Codes:	82495
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of serum chromium, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Serum chromium levels can be significantly higher in patients with metal-on-metal total hip replacement implants than in control patients without metal implants. Serum chromium levels may be increased in asymptomatic patients with metal-on-metal prosthetics and should be considered in the context of the overall clinical scenario. Whole blood is the specimen type recommended by the U.S. Food and Drug Administration for assessing the risks of metal-on-metal hip implants in symptomatic patients.

Symptoms associated with chromium toxicity vary based on route of exposure and dose, and may include dermatitis, impairment of pulmonary function, gastroenteritis, hepatic necrosis, bleeding, and acute tubular necrosis.

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

Reference Interval:

Less than or equal to 5.0 μg/L

TEST CHANGE

Glucagon 0099165,
GLUCA

Specimen Requirements:	
Patient Preparation:	Fast 12 hours prior to collection.
Collect:	Protease ~~i~~Inhibitor tube (PPACK; Phe-Pro-Arg-chloromethylketone) (ARUP supply #49662), available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at ~~(~~800~~-~~) ~~~~522-2787. A winged collection set must be used.
Specimen Preparation:	Mix well. Separate from cells within 1 hour of collection. Transfer 1 mL plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.5 mL)
Transport Temperature:	Frozen. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Grossly hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: 3 months
Methodology:	Quantitative Radioimmunoassay
Performed:	Tue
Reported:	3-11 days
Note:	
CPT Codes:	82943
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

Effective December 1, 2014
Adult: Less than or equal to 208 ng/L

TEST CHANGE

Manganese, Serum

0099265, MANG

Specimen Requirements:	
Patient Preparation:	Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and non-essential over-the-counter medications (upon the advice of their physician).
Collect:	Royal Blue (No Additive).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 2 mL serum to an ARUP Trace Element-Free Transport Tube (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 0.5 mL)
Transport Temperature:	Room temperature.
Unacceptable Conditions:	Plasma. Specimens that are not separated from clot, within 2 hours. Separator tubes or Royal Blue (EDTA). Specimens transported in tubes other than specified. Hemolyzed specimens.
Remarks:	
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Indefinitely
Methodology:	Quantitative Inductively Coupled Plasma-Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-35 days
Note:	
CPT Codes:	83785
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of serum manganese, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Less than 5 percent of manganese present in circulation resides in the serum.

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

Reference Interval:

0.0- 2.0 µg/L

TEST CHANGE

Liver-Kidney Microsome Antibody, IgG

0099270, LIVER-KID

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.15 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Severely hemolyzed or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month.~~year (avoid repeated freeze/thaw cycles)~~
Methodology:	Semi-Quantitative Indirect Fluorescent Antibody
Performed:	Mon-Sat
Reported:	1-3 days
Note:	
CPT Codes:	86376
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Liver-Kidney Microsome IgG antibody (anti-LKM), as detected by indirect immunofluorescent antibody (IFA) techniques, may be observed in patients with autoimmune hepatitis type 2 (AIH-2), AIH-2 associated with autoimmune polyendocrinopathy-candidiasis-ectodermal dystrophy (APECED), viral hepatitis C or D, and some forms of drug-induced hepatitis. This IFA does not differentiate among the four types of LKM antibodies (LKM-1, LKM-2, LKM-3, and a fourth type that recognizes CYP1A2 and CYP2A6 antigens). Of these, anti-LKM-1 (cytochrome P450IID6) IgG antibodies are considered specific for AIH-2.

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

Reference Interval:

Less than 1:20 Normal

TEST CHANGE

Clomipramine and Metabolite, Serum or Plasma

0099336, CLOMIP

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

The therapeutic range listed relates to the antidepressant characteristics of the drug. A therapeutic range for treating obsessive compulsive disorder is not well established. Toxic concentrations may cause anticholinergic effects, CNS depression, cardiac abnormalities, seizures, and hypotension.

Reference Interval:

Effective February 19, 2013

Therapeutic Range	Total (clomipramine and norclomipramine):

	220-500 ng/mL
Toxic Level	Greater than 900 ng/mL

TEST CHANGE

Tricyclic Antidepressants, Quantitative, Serum or Plasma

2007549, TADQNT SP

Specimen Requirements:	
Patient Preparation:	Timing of specimen collection: Predose (trough) draw at steady-state concentration.
Collect:	Plain red. Also acceptable: Lavender (K2 or K3EDTA) or pink (K2EDTA).
Specimen Preparation:	Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).
Remarks:	
Stability:	After separation from cells: Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	This test is used to quantitate the following tricyclic antidepressants: amitriptyline, clomipramine, desipramine, doxepin, imipramine, norclomipramine, nordoxepin, nortriptyline, and protriptyline.
CPT Codes:	80337 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

Effective November 18th, 2013

Drug	Therapeutic Range	Toxic
Amitriptyline (Elavil, Vanatrip)	Not established	Not established
Nortriptyline (Aventyl, Pamelor)	50-150 ng/mL	Greater than 500 ng/mL
Total Amitriptyline + Nortriptyline	95-250 ng/mL	Greater than 500 ng/mL
Imipramine (Tofranil)	Not established	Not established
Desipramine (Norpramin)	100-300 ng/mL	Greater than 500 ng/mL
Total Imipramine + Desipramine	150-300 ng/mL	Greater than 500 ng/mL
Doxepin (Sinequan, Zonalon)	Not established	Not established
Nordoxepin	Not established	Not established
Total Doxepin + Nordoxepin	100-300 ng/mL	Greater than 500 ng/mL
Protriptyline (Vivactil)	70-240 ng/mL	Greater than 400 ng/mL
Clomipramine (Anafranil)	Not established	Not established
Norclomipramine	Not established	Not established
Total Clomipramine + Norclomipramine	220-500 ng/mL	Greater than 900 ng/mL

TEST CHANGE

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

2010138, AML1-ETO Q

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 3 mL) Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood or Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Reverse Transcription Polymerase Chain Reaction
Performed:	Varies
Reported:	5-9 days
Note:	
CPT Codes:	81401
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

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

TEST CHANGE

Collagen Type VII Antibody, IgG by ELISA

2010905, COLLAG 7

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube (SST).
Specimen Preparation:	Transfer 2 mL serum to an ARUP Standard Transport Tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated/Ambient~~.~~
Unacceptable Conditions:	Hemolyzed or lipemic specimens. Plasma.
Remarks:	As a general rule, serum specimens should be shipped to the laboratory as soon as possible. Store refrigerated unless shipping promptly (within 2 hours). Transport at ambient temperature to arrive within 7 days. If 7-14 days until received in laboratory, store and ship refrigerated. If greater than 14 days, serum specimens must be stored and shipped frozen.
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-9~~7-14~~ days
Note:	For specimens less than 0.5 mL, call the Immunodermatology Laboratory at 801-581-7139~~(866) 266-5699~~.
CPT Codes:	83516
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report	

TEST CHANGE

CBFB::=MYH11 inv(16) Detection, Quantitative

2011114, INV 16 QNT

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA) or bone marrow (EDTA).
Specimen Preparation:	Whole Blood: Transport 5 mL whole blood. (Min: 3 mL) Bone Marrow: Transport 3 mL bone marrow. (Min: 1 mL) Refrigerate immediately. Specimens must be received within 48 hours of collection due to lability of RNA.
Transport Temperature:	Whole Blood or Bone Marrow: CRITICAL REFRIGERATED. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	Serum, plasma, extracted DNA, CSF, FFPE tissue, ambient whole blood, or frozen whole blood or bone marrow. Specimens collected in anticoagulants other than EDTA. Severely hemolyzed or clotted specimens. Ambient bone marrow specimens past 7 days will be canceled. Refrigerated whole blood or bone marrow specimens past 7 days will be canceled.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Quantitative Reverse Transcription Polymerase Chain Reaction
Performed:	Varies
Reported:	5-9 days
Note:	
CPT Codes:	81401
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

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

TEST CHANGE

Desipramine, Serum or Plasma by Tandem Mass Spectrometry

2011487, DESIPRAMIN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum predose (trough) draw at a steady-state concentration or plasma predose (trough) draw at a steady-state concentration in plain red, lavender (K2EDTA), lavender (K3EDTA), or pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Whole blood. Gel Separator Tubes, Light Blue (Sodium Citrate), or Yellow (SPS or ACD Solution).
Remarks:	
Stability:	Ambient: 5 days; Refrigerated: 2 weeks; Frozen: 6 months
Methodology:	Quantitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	~~Mon, Wed,~~ Fri
Reported:	2-8~~1-7~~ days
Note:	
CPT Codes:	80335 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

The therapeutic range is based on serum predose (trough) draw at steady-state concentration. Toxic concentrations may cause anticholinergic effects, drowsiness and cardiac abnormalities.

Reference Interval:

Therapeutic Range:	100-300 ng/mL
Toxic:	Greater than 500 ng/mL

TEST CHANGE

Aquaporin-4 (AQP4) Antibody, IgG by CBA-IFA With Reflex to Titer, CSF

2011699, AQP4 CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	Transfer 0.5 mL CSF to an ARUP standard transport tube. (Min: 0.15 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Hemolyzed, contaminated specimens or severely lipemic specimens.
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month. ~~year~~
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody
Performed:	Mon, Wed, Fri
Reported:	1-6 days
Note:	If AQP4 antibody IgG is positive, then an AQP4 antibody IgG titer is reported. Additional charges apply.
CPT Codes:	86052; if reflexed, add 86256
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Neuromyelitis optic (NMO) commonly presents with optic neuritis or longitudinally extensive transverse myelitis. Approximately 75% of patients with NMO have antibodies to the aquaporin-4 (AQP4) receptor. While the absence of AQP4 receptor antibodies does not rule out a diagnosis of NMO, presence of this antibody is diagnostic for NMO.

This indirect fluorescent antibody assay utilizes AQP4 receptor transfected cell lines for the detection and semiquantification of AQP4 IgG antibody.

Reference Interval:

Less than 1:1

TEST CHANGE

Phospholipase A2 Receptor (PLA2R) Antibody, IgG with Reflex to Titer

2011828, PLA2R

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum Separator Tube
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.2 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Hemolyzed, hyperlipemic,icteric, heat-treated or contaminated
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month. ~~1year~~
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody
Performed:	Mon, Wed, Fri
Reported:	1-6 days
Note:	If Phospholipase A2 Receptor Antibody, IgG is positive, then a Phospholipase Receptor A2 Antibody, IgG titer will be added. Additional charges apply.
CPT Codes:	86255; if reflexed, add 86256
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

A positive result (1:10 or greater) for phospholipase A2 receptor antibody, IgG in conjunction with other laboratory and clinical findings, supports a diagnosis of primary membranous glomerulonephritis (pMGN).

Reference Interval:

Less than 1:10

TEST CHANGE

Keratan Sulfate, Quantitative by LC-MS/MS, Urine

2012259, KS U MS

Specimen Requirements:	
Patient Preparation:	Morning void is preferred.
Collect:	Urine.
Specimen Preparation:	Transfer 2 mL urine to ARUP standard transport tube~~Standard Transport Tube~~ and freeze immediately. (Min: 1 mL)
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted with multiple tests are ordered.
Unacceptable Conditions:	Specimens containing preservatives.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 1 month
Methodology:	Liquid Chromatography-Tandem Mass Spectrometry
Performed:	T~~h~~ue
Reported:	3-10 days
Note:	
CPT Codes:	83864
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.
Keratan Sulfate, Total is calculated as the sum of the two disaccharides, LacNAc1 and LacNAc2, per milligram of creatinine (CRT).

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

Reference Interval:

Age	Total Keratan Sulfate (ug/mg CRT)
0-11 months	5.65 - 20.73
1 year - 5 years	1.75 - 6.81
6 years - 15 years	0.67 - 4.16
16 years and older	0.29 - 0.85

TEST CHANGE

Aquaporin-4 (AQP4) Antibody, IgG by CBA-IFA With Reflex to Titer, Serum

2013320, AQP4 SER

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST) or plain red.
Specimen Preparation:	Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.15 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Contaminated.
Remarks:	N/A
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month.~~year~~
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody
Performed:	Mon, Wed, Fri
Reported:	1-6 days
Note:	If AQP4 antibody IgG is positive, then an AQP4 antibody IgG titer is reported. Additional charges apply.
CPT Codes:	86052; if reflexed, add 86256
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Neuromyelitis optic (NMO) commonly presents with optic neuritis or longitudinally extensive transverse myelitis. Approximately 75% of patients with NMO have antibodies to the aquaporin-4 (AQP4) receptor. While the absence of AQP4 receptor antibodies does not rule out a diagnosis of NMO, presence of this antibody is diagnostic for NMO.
This indirect fluorescent antibody assay utilizes AQP4 receptor transfected cell lines for the detection and semiquantification of AQP4 IgG antibody.

Reference Interval:

Less than 1:10

TEST CHANGE

Cystic Fibrosis (CFTR) Expanded Variant Panel, Fetal

2013662, CF VAR FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood ~~for maternal cell contamination~~: lavender (K2 or K3EDTA~~EDTA~~), pink (K2EDTA), yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container (m~~M~~in: 5 mL) OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND~~Whole blood for~~ maternal whole blood: 2~~contamination: Transport 3~~ mL whole blood~~.~~ (m~~M~~in:~~ ~~1 mL)~~.)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes, or cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood: Room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	Patient History Form is available on the ARUP Web site or by contacting ARUP Client Services.
Stability:	Fetal Specimen: Ambient 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month~~
Methodology:	Matrix-Assisted Laser Desorption Ionization-Time of Flight (MALDI-TOF) Mass Spectrometry/Fragment Analysis
Performed:	Sun-Sat
Reported:	7-10 days

Note:	The Cystic Fibrosis (CFTR) Expanded Variant Panel includes 23 pathogenic CFTR variants recommended by the American College of Medical Genetics for population carrier screening.
CPT Codes:	81220; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report	

TEST CHANGE

Tetrahydrocannabinol (THC)~~Marijuana~~ Metabolite, Umbilical Cord Tissue, Qualitative

3000256, THC QQQ CD

Specimen Requirements:	
Patient Preparation:	
Collect:	Umbilical c~~C~~ord (At least 8 inches, approximately the width of a sheet of paper.)
Specimen Preparation:	Drain and discard any blood. Rinse the exterior of the cord segment with normal saline or water. Pat the cord dry and transport at least 8 inches of umbilical cord in a routine urine collection cup or Security Kit for Meconium/Umbilical Drug Detection (ARUP supply #51548) available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at ~~(~~800~~-)~~ 522-2787. (Min: 6 inches)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Cords soaking in blood or other fluid. Formalin fixed. Tissue that is obviously decomposed.
Remarks:	
Stability:	Ambient: 1 week; Refrigerated: 3 weeks; Frozen: 1 year
Methodology:	Qualitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-3 days
Note:	Absolute Minimum: 6 inches.
CPT Codes:	80349 (Alt code: G0480)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Positive cutoff: 0.2 ng/g
Methodology: ~~Qualitative Liquid Chromatography-Tandem~~ Mass s~~S~~pectrometry

This test is designed to detect and document exposure that occurred during approximately the last trimester of a full term pregnancy, to a common ~~cannabis (marijuana)~~ metabolite of THC (which may be present in cannabis products).~~.~~ Alternative testing is available to detect other drug exposures. The pattern and frequency of drug(s) used by the mother cannot be determined by this

test. A negative result does not exclude the possibility that a mother used drugs during pregnancy. Detection of drugs in umbilical cord tissue depends on extent of maternal drug use, as well as drug stability, unique characteristics of drug deposition in umbilical cord tissue, and the performance of the analytical method. Drugs administered during labor and delivery may be detected. Detection of drugs in umbilical cord tissue does not insinuate impairment and may not affect outcomes for the infant. Interpretive questions should be directed to the laboratory.

This test does not distinguish between the delta-8 and delta-9 forms of THC or their metabolites. For medical purposes only; not valid for forensic use.

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

Reference Interval:

Test Number	~~Drugs/Drug Classes~~	~~Cutoff Concentrations (ng/g)~~	Components	Reference Interval
	~~THC-COOH~~	~~0.2~~		
			Carboxy-THC, Cord	Cutoff 0.2 ng/g

Deleted Cells

Inserted Cells

Inserted Cells

TEST CHANGE

Basement Membrane Zone Antibody Panel

3001410, BMZ AB PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain Red or Serum Separator Tube (SST).
Specimen Preparation:	Transfer 2 mL serum to an ARUP Standard Transport Tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated/Ambient~~.~~
Unacceptable Conditions:	Hemolyzed or lipemic specimens. Plasma
Remarks:	As a general rule, serum specimens should be shipped to the laboratory as soon as possible. Store refrigerated unless shipping promptly (within 2 hours). Transport at ambient temperature to arrive within 7 days. If 7-14 days until received in laboratory, store and ship refrigerated. If greater than 14 days, serum specimens must be stored and shipped frozen.
Stability:	Ambient: 1 week; Refrigerated: 2 weeks; Frozen: Indefinitely
Methodology:	Semi-Quantitative Indirect Immunofluorescence (IIF)/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3~~4~~-9 days
Note:	For specimens less than 0.5 mL, call the Immunodermatology Laboratory at 801-581-7139~~(866) 266-5699~~.
CPT Codes:	88346; 88350 x3; 83516 x3
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report	

ARUP LABORATORIES | A nonprofit enterprise of the University of Utah and its Department of Pathology

Effective Date: January 21, 2025

TEST CHANGE

Disaccharidase in

Tissue 3002037, DISACT

Specimen Requirements:	
Patient Preparation:	
Collect:	Two 5 mg biopsies of small bowel tissue. Use DISACT (Disaccharidase) Tissue collection kit (ARUP Supply #64011) available online through eSupply using ARUP Connect(TM) or contact Client Services at 800-522-2787. ~~Biopsies of small bowel by endoscopy.~~
Specimen Preparation:	Use DISACT (Disaccharidase) Tissue collection kit (ARUP Supply #64011) available online through eSupply using ARUP Connect(TM) or contact Client Services at (800) 522-2787. Place one biopsy~~two 5 mg biopsies of tissue~~ on the wall of each collection~~a small, tightly-capped plastic tube~~ without any supporting media ~~or an ARUP Standard Transport Tube~~ and freeze within 2 hours of collection. (Min: ~~2 (~~two~~)~~ 5 mg biopsies)~~.)~~
Transport Temperature:	Frozen. Ship on dry ice.
Unacceptable Conditions:	Specimens placed on gauze, filter paper, or any other type of support media. Specimens~~Tissue~~ preserved in formalin or in liquid.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 6 months
Methodology:	Quantitative Spectrophotometry
Performed:	Mon, Wed, Fri
Reported:	1-6 days
Note:	
CPT Codes:	82657
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~	

Deleted Cells

Reference Interval:

Component	Reference Interval
Lactase	Greater than or equal to 10.0 umol/min/g protein
Maltase	Greater than or equal to 100.0 umol/min/g protein
Palatinase	Greater than or equal to 9.0 umol/min/g protein
Sucrase	Greater than or equal to 25.0 umol/min/g protein

TEST CHANGE

Drug Detection Panel and THC Metabolite, Umbilical Cord Tissue, Qualitative

3006371, C PAN_THC

Specimen Requirements:	
Patient Preparation:	
Collect:	Umbilical cord (at least 8 inches, approximately the width of a sheet of paper.)
Specimen Preparation:	Drain and discard any blood. Rinse the exterior of the cord segment with normal saline or water. Pat the cord dry and transport at least 8 inches of umbilical cord in a routine urine collection cup or Security Kit for Meconium/Umbilical Drug Detection (ARUP supply #51548) available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at 800-522-2787.
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Cords soaking in blood or other fluid. Formalin fixed. Tissue that is obviously decomposed.
Remarks:	
Stability:	Ambient: 1 week; Refrigerated: 3 weeks; Frozen: 1 year
Methodology:	Qualitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-4 days
Note:	For alcohol metabolite, order Ethyl Glucuronide, Umbilical Cord Tissue, Qualitative (ARUP test code 3000443). For kratom analyte~~metabolite~~, order Kratom, Umbilical Cord Tissue, Qualitative (ARUP test code 3005874). If there is not enough sample to complete both components of testing, test will be canceled and client can order an individual test. Drug Detection Panel, Umbilical Cord Tissue, Qualitative (ARUP test code 2006621), or Tetrahydrocannabinol (THC)~~Marijuana~~ Metabolite, Umbilical Cord Tissue, Qualitative (ARUP test code 3000256).
CPT Codes:	80346; 80348; 80353; 80361; 80356; 80365; 80373; 80354; 80362; 80355; 80359; 80325; 80345; 80372; 80358; 83992; 80368; 80367; 80349 (Alt code: G0482)

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

Interpretive Data:

Methodology: liquid chromatography/tandem mass spectrometry~~Qualitative Liquid Chromatography/Tandem Mass Spectrometry~~

Detection of drugs in umbilical cord tissue is intended to reflect maternal drug use during approximately the last trimester of a full-term pregnancy. The pattern and frequency of drug(s) used by the mother cannot be determined by this test. A negative result does not exclude the possibility that a mother used drugs during pregnancy. Detection of drugs in umbilical cord tissue depends on extent of maternal drug use, as well as drug stability, unique characteristics of drug deposition in umbilical cord tissue, and the performance of the analytical method. Drugs administered during labor and delivery may be detected. Detection of drugs in umbilical cord tissue does not insinuate impairment and may not affect outcomes for the infant. Interpretive questions should be directed to the laboratory.

Reference Interval:

Test Number	Components	Reference Interval
	Buprenorphine, Cord, Qual	Cutoff 1 ng/g
	Codeine, Cord, Qual	Cutoff 0.5 ng/g
	Dihydrocodeine, Cord, Qual	Cutoff 1 ng/g
	Fentanyl, Cord, Qual	Cutoff 0.5 ng/g
	Hydrocodone, Cord, Qual	Cutoff 0.5 ng/g
	Hydromorphone, Cord, Qual	Cutoff 0.5 ng/g
	Meperidine, Cord, Qual	Cutoff 2 ng/g
	Methadone, Cord, Qual	Cutoff 2 ng/g
	Methadone Metabolite, Cord, Qual	Cutoff 1 ng/g
	6-Acetylmorphine, Cord, Qual	Cutoff 1 ng/g
	Morphine, Cord, Qual	Cutoff 0.5 ng/g
	Naloxone, Cord, Qual	Cutoff 1 ng/g
	Oxycodone, Cord, Qual	Cutoff 0.5 ng/g
	Oxymorphone, Cord, Qual	Cutoff 0.5 ng/g
	Propoxyphene, Cord, Qual	Cutoff 1 ng/g
	Tapentadol, Cord, Qual	Cutoff 2 ng/g
	Tramadol, Cord, Qual	Cutoff 2 ng/g
	N-desmethyltramadol, Cord, Qual	Cutoff 2 ng/g
	O-desmethyltramadol, Cord, Qual	Cutoff 2 ng/g
	Amphetamine, Cord, Qual	Cutoff 5 ng/g
	Benzoylecgonine, Cord, Qual	Cutoff 1 ng/g
	m-OH-Benzoylecgonine, Cord, Qual	Cutoff 1 ng/g
	Cocaethylene, Cord, Qual	Cutoff 1 ng/g
	Cocaine, Cord, Qual	Cutoff 1 ng/g
	MDMA- Ecstasy, Cord, Qual	Cutoff 5 ng/g
	Methamphetamine, Cord, Qual	Cutoff 5 ng/g
	Phentermine, Cord, Qual	Cutoff 8 ng/g
	Alprazolam, Cord, Qual	Cutoff 0.5 ng/g
	Alpha-OH-Alprazolam, Cord, Qual	Cutoff 0.5 ng/g
	Butalbital, Cord, Qual	Cutoff 25 ng/g
	Clonazepam, Cord, Qual	Cutoff 1 ng/g
	7-Aminoclonazepam, Cord, Qual	Cutoff 1 ng/g
	Diazepam, Cord, Qual	Cutoff 1 ng/g
	Lorazepam, Cord, Qual	Cutoff 5 ng/g
	Midazolam, Cord, Qual	Cutoff 1 ng/g
	Alpha-OH-Midazolam, Cord, Qual	Cutoff 2 ng/g
	Nordiazepam, Cord, Qual	Cutoff 1 ng/g

	Oxazepam, Cord, Qual	Cutoff 2 ng/g
	Phenobarbital, Cord, Qual	Cutoff 75 ng/g
	Temazepam, Cord, Qual	Cutoff 1 ng/g
	Zolpidem, Cord, Qual	Cutoff 0.5 ng/g
	Phencyclidine- PCP, Cord, Qual	Cutoff 1 ng/g
	Norbuprenorphine, Cord, Qual	Cutoff 0.5 ng/g
	Norhydrocodone, Cord, Qual	Cutoff 1 ng/g
	Noroxycodone, Cord, Qual	Cutoff 1 ng/g
	Noroxymorphone, Cord, Qual	Cutoff 0.5 ng/g
	Carboxy-THC~~-COOH~~, Cord~~, Qual~~	Cutoff 0.2 ng/g
	Gabapentin, Cord, Qual	Cutoff 10 ng/g

TEST CHANGE

Drug Detection Panel and THC Metabolite, Meconium, Qualitative

3006373, M PAN_THC

Specimen Requirements:	
Patient Preparation:	
Collect:	All meconium (blackish material) excreted until milk/formula-based stool (yellow-green) appears.
Specimen Preparation:	Transport all available meconium (2g~~4 grams~~ is preferred) to routine urine collection cup or Security Kit for Meconium/Umbilical Drug Detection (ARUP supply #51548) available online through eSupply using ARUP Connect(TM) or by contacting ARUP Client Services at 800-522-2787.
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Unknown fluids, pharmaceutical preparation, and breast milk. Diapers, cotton swabs, baby wipes, tongue depressors, bottles.
Remarks:	
Stability:	Ambient: 1 week; Refrigerated: 3 weeks; Frozen: 1 year
Methodology:	Qualitative Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-4 days
Note:	If only enough sample is available for one component of testing, this test will be canceled and client can order individual test:~~.~~ Drug Detection Panel, Meconium, Qualitative (3004583) or Tetrahydrocannabinol (THC),~~Marijuana,~~ Meconium, Qualitative (0092316).
CPT Codes:	80346; 80348; 80353; 80361; 80356; 80365; 80373; 80354; 80362; 80355; 80359; 80325; 80360; 80345; 80372; 80358; 83992; 80323; 80368; 80349 (Alt code: G0482)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Methodology: liquid chromatography/tandem mass spectrometry~~Qualitative Liquid Chromatography/Tandem Mass Spectrometry~~	

Detection of drugs ~~in meconium~~ is intended to reflect maternal drug use during approximately the last trimester of a full-term pregnancy. The pattern and frequency of drug(s) used by the mother cannot be determined by this test. A negative result does not exclude the possibility that a mother used drugs during pregnancy. Detection of drugs ~~in meconium~~ depends on the extent of maternal drug use, as well as drug stability, unique characteristics of drug deposition in meconium, and the performance of the analytical method. Drugs administered during labor and delivery, or drugs administered directly to the infant after birth may be detected. Detection of drugs in meconium does not insinuate impairment and may not affect outcomes for the infant. Interpretive questions should be directed to the laboratory.

For medical purposes only; not valid for forensic use.

Reference Interval:

Test Number	Components	Reference Interval
	Carboxy-THC, MECMarijuana, Meconium, Qual	Cutoff 5 ng/g
	6-Acetylmorphine, MEC, Qual	Cutoff 20 ng/g
	7-Aminoclonazepam, MEC, Qual	Cutoff 5 ng/g
	Alpha-OH-Alprazolam, MEC, Qual	Cutoff 5 ng/g
	Alpha-OH-Midazolam, MEC, Qual	Cutoff 20 ng/g
	Alprazolam, MEC, Qual	Cutoff 5 ng/g
	Amphetamine, MEC, Qual	Cutoff 20 ng/g
	Benzoylecgonine, MEC, Qual	Cutoff 20 ng/g
	Buprenorphine, MEC, Qual	Cutoff 20 ng/g
	Butalbital, MEC, Qual	Cutoff 50 ng/g
	Clonazepam, MEC, Qual	Cutoff 5 ng/g
	Cocaethylene, MEC, Qual	Cutoff 20 ng/g
	Cocaine, MEC, Qual	Cutoff 20 ng/g
	Codeine, MEC, Qual	Cutoff 2 ng/g
	Diazepam, MEC, Qual	Cutoff 5 ng/g
	Dihydrocodeine, MEC, Qual	Cutoff 20 ng/g
	Methadone Metabolite, MEC, Qual	Cutoff 10 ng/g
	Fentanyl, MEC, Qual	Cutoff 10 ng/g
	Gabapentin, MEC, Qual	Cutoff 20 ng/g
	Hydrocodone, MEC, Qual	Cutoff 20 ng/g
	Hydromorphone, MEC, Qual	Cutoff 20 ng/g
	Lorazepam, MEC, Qual	Cutoff 20 ng/g
	MDMA- Ecstasy, MEC, Qual	Cutoff 20 ng/g
	Meperidine, MEC, Qual	Cutoff 20 ng/g
	Methadone, MEC, Qual	Cutoff 10 ng/g
	Methamphetamine, MEC, Qual	Cutoff 20 ng/g
	Methylphenidate, MEC, Qual	Cutoff 20 ng/g
	Midazolam, MEC, Qual	Cutoff 20 ng/g
	m-OH-Benzoylecgonine, MEC, Qual	Cutoff 20 ng/g
	Morphine, MEC, Qual	Cutoff 20 ng/g
	Naloxone, MEC, Qual	Cutoff 20 ng/g
	N-desmethyltramadol, MEC, Qual	Cutoff 20 ng/g
	Norbuprenorphine, MEC, Qual	Cutoff 20 ng/g
	Nordiazepam, MEC, Qual	Cutoff 20 ng/g
	Mitragynine, MEC, Qual	Cutoff 25 ng/g
	Norhydrocodone, MEC, Qual	Cutoff 20 ng/g

	Noroxycodone, MEC, Qual	Cutoff 20 ng/g
	O-desmethyltramadol, MEC, Qual	Cutoff 20 ng/g
	Oxazepam, MEC, Qual	Cutoff 20 ng/g
	Oxycodone, MEC, Qual	Cutoff 20 ng/g
	Oxymorphone, MEC, Qual	Cutoff 20 ng/g
	Phencyclidine- PCP, MEC, Qual	Cutoff 10 ng/g
	Phenobarbital, MEC, Qual	Cutoff 200 ng/g
	Phentermine, MEC, Qual	Cutoff 20 ng/g
	Tapentadol, MEC, Qual	Cutoff 20 ng/g
	Temazepam, MEC, Qual	Cutoff 20 ng/g
	Tramadol, MEC, Qual	Cutoff 20 ng/g
	Zolpidem, MEC, Qual	Cutoff 10 ng/g

TEST CHANGE

Red Blood Cell Antigen Genotyping, Fetal

3016639, RBCGENO FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood ~~for maternal cell contamination~~: lavender (K2 or K3EDTA~~K2EDTA~~), pink (K2EDTA), or yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container. (Min: 5 mL) OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Transport 2~~3~~ mL whole blood (m~~M~~in: 1 mL)~~.)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes or cultured CVS: CRITICAL TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood: room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	The Patient History Form is available on the ARUP website or by contacting ARUP Client Services.
Stability:	Fetal specimens: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month.~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	3-10 days
Note:	

CPT Codes:	0001U; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	
Reference Interval:	

TEST CHANGE

RhD Gene (RHD) Copy Number, Fetal

3016640, RHD FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood: lavender ~~for maternal cell contamination: Lavender~~ (EDTA), pink (K2EDTA), or yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container (Min: 5 mL) OR cultured amniocytes OR cultured CVS: Fill with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND maternal whole~~Whole~~ blood for maternal: transport 2 ~~cell contamination: Transport 3~~ mL whole blood (m~~M~~in: 1 mL). ~~)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes and cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood: room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	Patient History Form is available on the ARUP website or by contacting ARUP Client Services.
Stability:	Fetal Specimens: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood for maternal cell contamination: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable ~~1 month~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	2-7 days

Note:	
CPT Codes:	81403; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report. Counseling and informed consent are recommended for genetic testing. Consent forms are available online.	
Reference Interval:	
By report	

TEST CHANGE

Platelet Antigen Genotyping Panel, Fetal

3016673, HPAGENO FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood ~~for maternal cell contamination~~: lavender (K2 or K3EDTA~~EDTA~~), pink (K2EDTA), or yellow (ACD solution A or B) If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container. (Min: 5 mL) OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND maternal whole~~Whole~~ blood for maternal cell contamination: Transport 2~~3~~ mL whole blood~~.~~ (Min: 1 mL~~).)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes, cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood: room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	The Patient History Form is available on the ARUP website or by contacting ARUP Client Services.
Stability:	Fetal specimens: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	7-14 days

Note:	
CPT Codes:	81105; 81106; 81107; 81108; 81109; 81110; 81112; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data: Refer to report.	
Reference Interval:	

TEST CHANGE

Kell K/k (KEL) Antigen Genotyping, Fetal

3016676, KELGENO FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood ~~for maternal cell contamination~~: lavender (K2 or K3EDTA~~EDTA~~), pink (K2EDTA), yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container (m~~M~~in: 5 mL) OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Transport 2~~3~~ mL whole blood (m~~M~~in: 1 mL)
Transport Temperature:	Amniotic fluid, cultured amniocytes, or cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood: room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	The Patient History Form is available on the ARUP website or by contacting ARUP Client Services.
Stability:	Fetal specimens: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood for maternal cell contamination: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	3-10 days

Note:	
CPT Codes:	0001U; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	
By report.	

TEST CHANGE

RhC/c (RHCE) Antigen Genotyping, Fetal

3016679, RHCGENO FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND Maternal whole blood ~~for maternal cell contamination~~: lavender (K2 or K3EDTA~~EDTA~~), pink (K2EDTA), or yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container (m~~M~~in: 5 mL). OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND~~Whole blood for~~ maternal whole blood~~cell contamination~~: Transport 2~~3~~ mL whole blood (m~~M~~in: 1 mL)~~.)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes or cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood: room temperature ~~for maternal cell contamination: Refrigerated~~.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	Patient History Form is available on the ARUP website or by contacting ARUP Client Services.
Stability:	Fetal specimens: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	3-10 days

Note:	
CPT Codes:	0001U; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report. Counseling and informed consent are recommended for genetic testing. Consent forms are available online.	
Reference Interval:	
By report	

TEST CHANGE

RhE/e (RHCE) Antigen Genotyping, Fetal

3016682, RHEGENO FE

Specimen Requirements:	
Patient Preparation:	
Collect:	Amniotic fluid OR cultured amniocytes OR cultured CVS: Two T-25 flasks at 80 percent confluency. AND maternal whole blood ~~for maternal cell contamination~~: lavender (K2 or K3EDTA~~EDTA~~), pink (K2EDTA), or yellow (ACD solution A or B). If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.
Specimen Preparation:	Amniotic fluid: Transport 10 mL amniotic fluid in a sterile container (m~~M~~in: 5 mL) OR cultured amniocytes OR cultured CVS: Fill flasks with culture media. Backup cultures must be retained at the client's institution until testing is complete. AND~~Whole blood for~~ maternal whole blood~~cell contamination~~: Transport 2~~3~~ mL whole blood (m~~M~~in: 1 mL)~~.)~~
Transport Temperature:	Amniotic fluid, cultured amniocytes, or cultured CVS: CRITICAL ROOM TEMPERATURE. Must be received within 48 hours of shipment due to lability of cells. Maternal whole~~Whole~~ blood for maternal cell contamination: Refrigerated.
Unacceptable Conditions:	Frozen specimens in glass collection tubes.
Remarks:	Patient History Form is available on the ARUP Web site or by contacting ARUP Client Services.
Stability:	Fetal specimens: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable Maternal whole~~Whole~~ blood ~~for maternal cell contamination~~: Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable~~1 month~~
Methodology:	Polymerase Chain Reaction (PCR)/Fluorescence Monitoring/Fragment Analysis
Performed:	Varies
Reported:	3-10 days
Note:	

CPT Codes:	0001U; 81265 Fetal Cell Contamination (FCC)
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Counseling and informed consent are recommended for genetic testing. Consent forms are available online.

Reference Interval:

By report

TEST CHANGE

Anti-Phospholipase A2 Receptor (PLA2R) Antibody, IgG by ELISA

3016767, ANTI-PLA2R

Specimen Requirements:	
Patient Preparation:	Separate serum from cells ASAP or within 2 hours of collection.
Collect:	Serum separator tube.
Specimen Preparation:	Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Contaminated, heat-inactivated, grossly hemolyzed, grossly icteric, or grossly lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 2 weeks
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Mon, ~~Wed,~~ Thu~~, Fri~~
Reported:	1-7~~4~~ days
Note:	
CPT Codes:	83516
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

A positive anti-phospholipase A2 receptor (PLA2R) antibody result by ELISA or IFA in conjunction with clinical symptoms and other laboratory findings is suggestive of primary membranous nephropathy (pMN). Absence of circulating anti-PLA2R receptor autoantibodies does not rule out a diagnosis of pMN. Anti-PLA2R antibody titers, due to its high predictive value, can be useful for assessing disease severity and monitoring clinical remission. In patients with pMN undergoing treatment, low antibody titers are associated with disease remission and high titers indicate loss of kidney function and need for an aggressive therapeutic approach.

Component	Interpretive Data
Anti-Phospholipase A2 Receptor, IgG	Negative: Less than 14 RU/mL Borderline: 14-19 RU/mL Positive: Greater than or

	equal to 20 RU/mL

Reference Interval:

Test Number	Components	Reference Interval
	Anti-Phospholipase A2 Receptor, IgG	< 14 RU/mL

NEW TEST – Available Now

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TRPS1 by Immunohistochemistry

3017721, TRPS1 IHC

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue or cells.
Specimen Preparation:	Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a Tissue Transport Kit (ARUP supply #47808 highly recommended) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787 (Min: 2 slides). If sending precut slides, do not oven bake.
Transport Temperature:	Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.
Unacceptable Conditions:	Specimens submitted with nonrepresentative tissue type. Depleted specimens.
Remarks:	IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS: Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Semi-Quantitative Immunohistochemistry (IHC)
Performed:	Mon-Fri
Reported:	1-3 days
Note:	This test is performed as a stain and return (technical) service only
CPT Codes:	88342

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

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST – Available Now

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Kelch-Like Protein 11 Antibody, IgG by CBA-IFA With Reflex to Titer, Serum

3018507, KLHL11 SER

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.2 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Urine or heat-inactivated specimens
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month (three freeze/thaw cycles are acceptable).
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody
Performed:	Wed
Reported:	1-8 days
Note:	If KLHL11 antibody IgG is positive, then KLHL11 antibody IgG titer will be added. Additional charges apply.
CPT Codes:	86255; if reflexed, add 86256
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

IgG antibodies to KLHL11 are associated with paraneoplastic neurologic syndromes with phenotypes most often including a combination of brainstem and cerebellar encephalitis as well as sensorineural hearing loss. Patients with anti-KLHL11 syndromes should be thoroughly evaluated for cancer, including testicular cancer, as neurologic symptoms often precede cancer diagnosis. Consider sending testing in CSF as well as serum to improve diagnostic yield. Coexisting and clinically relevant antineural antibodies have been reported; consider ordering a phenotype-specific panel to assess for these. Results (positive or negative) should be interpreted in the context of the patient's complete clinical picture, as false positives may occur, and a negative result does not exclude the diagnosis of immune-mediated neurologic disease.

Reference Interval:

Test Number	Components	Reference Interval
	KLHL11 Ab IgG CBA-IFA Screen, Serum	Less than 1:10

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

NEW TEST – Available Now

Click for Pricing

Kelch-Like Protein 11 Antibody, IgG by CBA-IFA, With Reflex to Titer, CSF

3018508, KLHL11 CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	Separate CSF.
Specimen Preparation:	Transfer 0.5 mL CSF to an ARUP standard transport tube. (Min: 0.15 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Grossly hemolyzed or contaminated specimens.
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month (three freeze/thaw cycles are acceptable)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody
Performed:	Wed
Reported:	1-8 days
Note:	If KLHL11 antibody IgG is positive, then KLHL11 antibody IgG titer will be added. Additional charges apply.
CPT Codes:	86255; if reflexed, add 86256
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

IgG antibodies to KLHL11 are associated with paraneoplastic neurologic syndromes with phenotypes most often including a combination of brainstem and cerebellar encephalitis as well as sensorineural hearing loss. Patients with anti-KLHL11 syndromes should be thoroughly evaluated for cancer, including testicular cancer, as neurologic symptoms often precede cancer diagnosis. Consider sending testing in serum as well as CSF to improve diagnostic yield. Coexisting and clinically relevant antineural antibodies have been reported; consider ordering a phenotype-specific panel to assess for these. Results (positive or negative) should be interpreted in the context of the patient's complete clinical picture, as false positives may occur, and a negative result does not exclude the diagnosis of immune-mediated neurologic disease.

Reference Interval:

Test Number	Components	Reference Interval
	KLHL11 Ab IgG CBA-IFA Screen, CSF	Less than 1:1

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

NEW TEST – Available Now

Click for Pricing

Allergen, Food, Brazil Nut Component Ber e 1, IgE

3018631, BER E 1

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at www.aruplab.com/testing/resources/specimen.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	1-3 days
Note:	
CPT Codes:	86008
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

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

Reporting Range (reported in kU/L)	Probability of IgE Mediated Clinical Reaction	Class Scoring
Less than 0.10	No significant level detected	0
0.10-0.34	Clinical relevance undetermined	0/1
0.35-0.70	Low	1
0.71-3.50	Moderate	2
3.51-17.50	High	3
17.51-50.00	Very high	4
20.01-100.00	Very high	5
Greater than 100.00	Very high	6

Reference Interval:

Test Number	Components	Reference Interval
	Brzl Nut Ber e1	Less than or equal to 0.09 kU/L

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

NEW TEST – Available Now

Click for Pricing

Allergen, Food, Hazelnut With Reflex to Components, IgE

3018638, HAZELNUT R

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.8 mL serum to an ARUP standard transport tube. (Min: 0.5 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at www.aruplab.com/testing/resources/specimen.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	1-3 days
Note:	This assay will initially test hazelnut whole allergen. If the hazelnut whole allergen result is greater than or equal to 0.1 kU/L, the hazelnut components Cor a 1, Cor a 8, Cor a 9, Cor a 14 will be ordered. Additional charges apply.
CPT Codes:	86003; if reflexed, add 86008 x4
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

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

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

Reference Interval:

Test Number	Components	Reference Interval
	Allergen, Food, Hazelnut IgE	Less than or equal to 0.34 kU/L

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

NEW TEST – Available Now

Click for Pricing

Allergen, Food, Brazil Nut With Reflex to Component, IgE

3018639, BRZL NUT R

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.35 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at www.aruplab.com/testing/resources/specimen.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	1-3 days
Note:	This assay will initially test brazil nut whole allergen. If the brazil nut whole allergen result is greater than or equal to 0.1 kU/L, brazil nut component Ber e 1 will be ordered. Additional charges apply.
CPT Codes:	86003; if reflexed, add 86008
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

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

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

Reference Interval:

Test Number	Components	Reference Interval
	Allergen, Food, Brazil Nut IgE	Less than or equal to 0.34 kU/L

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

NEW TEST

Click for Pricing

Allergen, Food, Nut Components Panel, IgE

3018650, NUT COM

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 2.0 mL serum to an ARUP standard transport tube. (Min: 1.0 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at www.aruplab.com/testing/resources/specimen.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	1-3 days
Note:	
CPT Codes:	86008 x6
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Amikacin Level, Random, Serum

3018754, AMIKA RA

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Plain red
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also acceptable: Frozen.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 2 weeks; Frozen: 28 days
Methodology:	Quantitative Kinetic Interaction of Microparticles in Solution (KIMS)
Performed:	Varies
Reported:	3-6 days
Note:	
CPT Codes:	80150
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Amikacin Level, Trough, Serum

3018756, AMIKA TR

Specimen Requirements:	
Patient Preparation:	Collect specimen 30 minutes before next dose.
Collect:	Serum separator tube (SST). Also acceptable: Plain red
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also acceptable: Frozen.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 2 weeks; Frozen: 28 days
Methodology:	Quantitative Kinetic Interaction of Microparticles in Solution (KIMS)
Performed:	Varies
Reported:	3-6 days
Note:	
CPT Codes:	80150
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Vancomycin Level, Trough, Serum

3018758, VANCOTR

Specimen Requirements:	
Patient Preparation:	Collect specimen 30 minutes before next dose.
Collect:	Plain red
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also Acceptable: Frozen
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Quantitative Kinetic Interaction of Microparticles in Solution (KIMS)
Performed:	Varies
Reported:	3-5 days
Note:	
CPT Codes:	80202
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Tobramycin Level, Random, Serum

3018760, TOBRAM R

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST). Also acceptable: Plain red
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Refrigerated
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 1 week; Frozen: 28 days
Methodology:	Quantitative Enzyme Immunoassay (EIA)
Performed:	Varies
Reported:	3-5 days
Note:	
CPT Codes:	80200
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Tobramycin Level, Trough, Serum

3018762, TOBRA TR

Specimen Requirements:	
Patient Preparation:	Collect specimen 30 minutes before next dose.
Collect:	Serum separator tube (SST). Also acceptable: Plain red
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Refrigerated
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 1 week; Frozen: 28 days
Methodology:	Quantitative Enzyme Immunoassay (EIA)
Performed:	Varies
Reported:	3-5 days
Note:	
CPT Codes:	80200
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Amikacin Level, Peak, Serum

3018769, AMIK PEAK

Specimen Requirements:	
Patient Preparation:	Collect specimen 30 to 60 minutes after last dose.
Collect:	Serum separator tube (SST). Also acceptable: Plain red.
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL). Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also acceptable: Frozen.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 72 hours; Refrigerated: 2 weeks; Frozen: 28 days.
Methodology:	Quantitative Kinetic Interaction of Microparticles in Solution (KIMS)
Performed:	Varies
Reported:	3-4 days
Note:	
CPT Codes:	80150
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Vancomycin Level, Random, Serum

3018771, VANCO RAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL). Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also acceptable: Frozen.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year.
Methodology:	Quantitative Kinetic Interaction of Microparticles in Solution (KIMS)
Performed:	Varies
Reported:	3-5 days
Note:	
CPT Codes:	80202
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST – Available Now

Click for Pricing

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

3018776, HBSAGRDABQ

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 3 mL serum to an ARUP standard transport tube. (Min: 2 mL). This test requires a dedicated transport tube submitted only for HBSAGRDABQ testing. Separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen
Unacceptable Conditions:	Specimens containing particulate material or obvious microbial contamination. Heat-inactivated, severely hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 5 days; Frozen: 4 months (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA) / Qualitative Enzyme Immunoassay (EIA)
Performed:	Varies
Reported:	1-2 days
Note:	Performed and Reported times indicated are for screening of the HBsAg. If results for HBsAg screen are repeatedly reactive with an index value between 1.00 and 50.00, then HBsAg Confirmation will be added. If positive for hepatitis B surface antigen, Hepatitis Delta Virus Antibody by ELISA With Reflex to Hepatitis Delta Virus by Quantitative PCR (ARUP test code 3006379) will be added. If the anti-HDV screening result is positive, Hepatitis Delta Virus by Quantitative PCR (ARUP test code 2013881) will be added. Performed and Reported times are for the antibody screening portion of this test. Refer to Hepatitis Delta Virus by Quantitative PCR regarding additional information regarding Performed and Reported times for the reflex portion of the test. Additional charges apply each time

	a reflexive test is indicated and added.
CPT Codes:	87340; if reflexed, add 87341; 86692; 87523
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

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

Reference Interval:

Test Number	Components	Reference Interval
	Hepatitis B Surface Antigen	Negative

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

NEW TEST – Available Now

Click for Pricing

Allergen, Food, Tree Nuts With Reflex to Components, IgE

3018799, TNUT PAN R

Specimen Requirements:	
Patient Preparation:	Multiple patient encounters should be avoided.
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1.5 mL serum to an ARUP standard transport tube. (Min: 1 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at www.aruplab.com/testing/resources/specimen
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Postmortem samples
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	1-3 days
Note:	This assay will initially test brazil nut, cashew, pistachio, hazelnut, walnut, pecan, almond. If the brazil nut whole allergen result is greater than or equal to 0.1 kU/L, the brazil nut component Ber e 1 will be ordered. If the cashew whole allergen result is greater than or equal to 0.1 kU/L, the cashew component Ana o 3 will be ordered. If the hazelnut whole allergen result is greater than or equal to 0.1 kU/L, the hazelnut components Cor a 1, Cor a 8, Cor a 9, Cor a 14 will be ordered. If the walnut whole allergen result is greater than or equal to 0.1 kU/L, the walnut components Jug r 1 and Jug r 3 will be ordered. Additional charges apply.
CPT Codes:	86003 x7; if reflexed, add 86008 per component
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

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

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

Reference Interval:

Test Number	Components	Reference Interval
	Allergen, Food, Almond IgE	Less than or equal to 0.34 kU/L
	Allergen, Food, Brazil Nut IgE	Less than or equal to 0.34 kU/L
	Allergen, Food, Cashew IgE	Less than or equal to 0.34 kU/L
	Allergen, Food, Pecan IgE	Less than or equal to 0.34 kU/L
	Allergen, Food, Hazelnut IgE	Less than or equal to 0.34 kU/L
	Allergen, Food, Pistachio IgE	Less than or equal to 0.34 kU/L
	Allergen, Food, Walnut (Juglans spp) IgE	Less than or equal to 0.34 kU/L

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

NEW TEST

Click for Pricing

Filaria Screen, Whole Blood With Reflex to Parasites Smear (Giemsa Stain), Blood

3018849, FILARIABLD

Specimen Requirements:	
Patient Preparation:	None
Collect:	Collect whole blood in lavender (EDTA) or pink (K2EDTA). Blood should be collected between 10 PM and 2 AM for optimal detection of Wuchereria and Brugia. Blood should be collected between 10 AM and 2 PM for optimal detection of Loa loa.
Specimen Preparation:	Transport 5 mL whole blood (Min: 1 mL).
Transport Temperature:	Room temperature
Unacceptable Conditions:	Frozen Clotted specimens
Remarks:	
Stability:	Ambient: 5 days Refrigerated: Unacceptable Frozen: Unacceptable
Methodology:	Qualitative Concentration / Qualitative Microscopy
Performed:	Sun-Sat
Reported:	1-3 days
Note:	If screen is detected then Parasites Smear (Giemsa Stain), Blood (0049025) will be added for identification of microfilariae, additional charges apply.
CPT Codes:	87015; 87210; if reflexed, add 87207
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Francisella tularensis Antibodies, IgG and IgM

3018856, F TULARPAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST) or plain red/red top
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.6 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Contaminated, heat-inactivated, or turbid specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Qualitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Mon, Wed, Fri
Reported:	1-6 days
Note:	
CPT Codes:	86668 x2
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Dermatomyositis and Polymyositis Panel

3018866, COMBI PAN2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer two 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Hemolyzed, hyperlipemic, icteric, heat-treated, or contaminated specimens
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Qualitative Immunoprecipitation / Semi-Quantitative Multiplex Bead Assay / Qualitative Immunoblot / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Sun-Sat
Reported:	7-18 days
Note:	Antibodies: PL-7, PL12, EJ, OJ, SRP, Jo-1, Mi-2, P155/140, SAE1, MDA5, NXP2, TIF1-gamma, ANA, Ha, Ks, Zo
CPT Codes:	83516 x7; 84182 x7; 86235; 86039
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Extended Myositis Panel

3018867, MYOS EXT2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST), red top tube
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer three 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Hemolyzed, hyperlipemic, icteric, heat-treated, or contaminated specimens.
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Qualitative Immunoprecipitation / Semi-Quantitative Multiplex Bead Assay / Qualitative Immunoblot / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Sun-Sat
Reported:	7-18 days
Note:	Antibodies: Mi-2, PL-7, PL12, P155/140, EJ, Ku, OJ, PM/Scl, SRP, Smith/RNP, Ro52, Ro60, Jo-1, U3 Fib, SAE1, NXP2, MDA5, TIF1-gamma, ANA, Ha, Ks, Zo
CPT Codes:	83516 x8; 86235 x6; 84182 x7; 86039
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Refer to report.

Component	Interpretation
SSA-52 (Ro52) (ENA) Antibody, IgG	29 AU/mL or less: Negative 30-40 AU/mL: Equivocal 41 AU/mL or greater: Positive
SSA-60 (Ro60) (ENA) Antibody, IgG	29 AU/mL or less: Negative 30-40 AU/mL: Equivocal 41 AU/mL or greater: Positive
Smith/RNP (ENA) Antibody, IgG	9 Units or less: Negative 20-39 Units: Weak Positive 40-80 Units: Moderate Positive 81 Units or greater: Strong Positive
Jo-1 Antibody, IgG	29 AU/mL or less: Negative 30-40 AU/mL: Equivocal 41 AU/mL or greater: Positive

Reference Interval:

Test Number	Components	Reference Interval
	Zo (phenylalanyl-tRNA synthetase) Ab	Negative
	Ks (asparaginyl-tRNA synthetase) Ab	Negative
	Ha (tyrosyl-tRNA synthetase) Ab	Negative
	TIF-1 gamma (155 kDa) Ab	Negative
	NXP2 (Nuclear matrix protein-2) Ab	Negative
	MDA5 (CADM-140) Ab	Negative
	SAE1 (SUMO activating enzyme) Ab	Negative
	Antinuclear Antibody (ANA), HEp-2, IgG	Less than 1:80
	Fibrillarin (U3 RNP) Ab, IgG	Negative
	SSA-60 (Ro60) (ENA) Antibody, IgG	40 AU/mL or less
	OJ (isoleucyl-tRNA synthetase) Antibody	Negative
	SRP (Signal Recognition Particle) Ab	Negative
	Ku Antibody	Negative
	EJ (glycyl-tRNA synthetase) Antibody	Negative
	P155/140 Antibody	Negative
	PL-12 (alanyl-tRNA synthetase) Antibody	Negative
	PL-7 (threonyl-tRNA synthetase) Antibody	Negative
	Mi-2 (nuclear helicase protein) Antibody	Negative
	PM/Scl 100 Antibody, IgG	Negative
	Jo-1 (Histidyl-tRNA Synthetase) Ab, IgG	40 AU/mL or less
	SSA-52 (Ro52) (ENA) Antibody, IgG	40 AU/mL or less
	Smith/RNP (ENA) Ab, IgG	19 Units or less

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

NEW TEST

Click for Pricing

Polymyositis Panel

3018868, POLY MYO2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer two 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Hemolyzed, hyperlipemic, icteric, heat-treated, or contaminated specimens
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Qualitative Immunoprecipitation / Semi-Quantitative Multiplex Bead Assay / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot
Performed:	Mon, Tue, Thu, Fri
Reported:	7-18 days
Note:	Antibodies: PL-7, PL12, EJ, OJ, SRP, Jo-1, ANA, Ha, Ks, Zo
CPT Codes:	83516 x5; 86235; 84182 x3; 86039
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Interstitial Lung Disease Autoantibody Panel

3018869, ILD PANEL2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer five 1 mL serum aliquots to ARUP standard transport tubes. (Min: 2.8 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Hemolyzed, hyperlipemic, icteric, heat-treated, or contaminated specimens.
Remarks:	
Stability:	Ambient: 24 hours; Refrigerated: 1 weeks; Frozen: 1 month
Methodology:	Qualitative Immunoprecipitation / Semi-Quantitative Multiplex Bead Assay / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Quantitative Immunoturbidimetry / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Sun-Sat
Reported:	7-18 days
Note:	Antibodies: Ro52, Ro60, Jo-1, PL-7, PL12, EJ, Ku, SRP, OJ, PM/Scl-100, MDA5, CCP, Scl-70, RA, ANA, NXP-2, RNA Polymerase III, Ha, Ks, Zo
CPT Codes:	86235 x5; 83516 x7; 84182 x5; 86431; 86200; 86039
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Dermatomyositis Autoantibody Panel

3018870, DERM PAN2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer one 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Hemolyzed, hyperlipemic, icteric, heat-treated, or contaminated specimens
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Qualitative Immunoprecipitation / Qualitative Immunoblot / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Sun-Sat
Reported:	7-18 days
Note:	Antibodies: Mi-2, P155/140, SAE1, MDA5, NXP2, TIF1-gamma, ANA
CPT Codes:	83516 x2; 84182 x4; 86039
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval

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

ARUP LABORATORIES

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Inactivations

The following will be discontinued from ARUP's test menu on January 21, 2025
Replacement test options are indicated when applicable.

Test Number	Test Name	Refer to Replacement Test
0090015	Amikacin, Random Level(Change effective as of 01/21/25: Refer to 3018754 in the January Hotline)	Amikacin Level, Random, Serum (3018754)
0090130	Gentamicin, Random Level(Inactive as of 01/21/25)	
0090270	Tobramycin, Random Level(Change effective as of 01/21/25: Refer to 3018760 in the January Hotline)	Tobramycin Level, Random, Serum (3018760)
0090285	Vancomycin, Random Level(Change effective as of 01/21/25: Refer to 3018771 in the January Hotline)	Vancomycin Level, Random, Serum (3018771)
0090295	Amikacin, Peak Level(Change effective as of 01/21/25: Refer to 3018769 in the January Hotline)	Amikacin Level, Peak, Serum (3018769)
0090300	Amikacin, Trough Level(Change effective as of 01/21/25: Refer to 3018756 in the January Hotline)	Amikacin Level, Trough, Serum (3018756)
0090305	Gentamicin, Peak Level(Inactive as of 01/21/25)	
0090310	Gentamicin, Trough Level(Inactive as of 01/21/25)	
0090315	Tobramycin, Peak Level(Inactive as of 01/21/25)	
0090320	Tobramycin, Trough Level(Change effective as of 01/21/25: Refer to 3018762 in the January Hotline)	Tobramycin Level, Trough, Serum (3018762)

Test Number	Test Name	Refer to Replacement Test
0090325	Vancomycin, Peak Level(Inactive as of 01/21/25)	
0090330	Vancomycin, Trough Level(Change effective as of 01/21/25: Refer to 3018758 in the January Hotline)	Vancomycin Level, Trough, Serum (3018758)
2002653	Acute Myelogenous Leukemia (AML) with Myelodysplastic Syndrome (MDS) or Therapy-Related AML, by FISH (Inactive as of 1/21/2025)	
2013990	Polymyositis Panel (Change effective as of 01/21/25: Refer to 3018868 in the January Hotline)	Polymyositis Panel (3018868)
3001781	Extended Myositis Panel (Change effective as of 01/21/25: Refer to 3018867 in the January Hotline)	Extended Myositis Panel (3018867)
3001782	Dermatomyositis Autoantibody Panel (Change effective as of 01/21/25: Refer to 3018870 in the January Hotline)	Dermatomyositis Autoantibody Panel (3018870)
3001783	Dermatomyositis and Polymyositis Panel (Change effective as of 01/21/25: Refer to 3018866 in the January Hotline)	Dermatomyositis and Polymyositis Panel (3018866)
3001784	Interstitial Lung Disease Autoantibody Panel (Change effective as of 01/21/25: Refer to 3018869 in the January Hotline)	Interstitial Lung Disease Autoantibody Panel (3018869)
3002912	Francisella tularensis Antibodies, IgG and IgM with Reflex to Agglutination (Change effective as of 01/21/25: Refer to 3018856 in the January Hotline)	Francisella tularensis Antibodies, IgG and IgM (3018856)
3004753	Allergen, Food, Nut Component Panel IgE (Change effective as of 01/21/25: Refer to 3018650 in the January Hotline)	Allergen, Food, Nut Components Panel,IgE (3018650)