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0020038	Lithium	Lithium, Serum or Plasma(Change effective as of 04/21/25: Refer to 3019008)																		x	
0020043	Ammonia	Ammonia, Plasma (Change effective as of 04/21/25: Refer to 3019004)																		x	
0020728	OSTEO NMID	Osteocalcin by Electrochemiluminescent Immunoassay					x														
0020763	PCT	Procalcitonin			x	x		x	x	x						x					
0050162	VZV PAN	Varicella-Zoster Virus Antibodies, IgG and IgM							x							x					
0050167	VZE	Varicella-Zoster Virus Antibody, IgG								x						x					
0054444	VZV IgG CSF	Varicella-Zoster Virus Antibody, IgG, CSF								x						x					
0055142	ALL PRO B	Allergens, Food, Profile 4 (Inactive as of 04/21/25)																			x
0055218	WKTFOOD	Allergens, Food, West Kentucky Group (Inactive as of 04/21/25)																			x
0060071	HHV6PCR	Human Herpesvirus 6 (HHV-6A and HHV-6B) by Quantitative PCR			x			x	x			x									
0060152	MC AFB	Acid-Fast Bacillus (AFB) Culture and AFB Stain			x			x													

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0060707	MA STAPH	Antimicrobial Susceptibility - Staphylococcus					x														
0060738	MC AFBR	Acid-Fast Bacillus (AFB) Culture and AFB Stain with Reflex to Mycobacterium tuberculosis Complex Detection and Rifampin Resistance by PCR			x			x													
0070027	AVH PLASMA	Arginine Vasopressin Hormone(Change effective as of 04/21/25: Refer to 3018705)																		x	
0080420	HIAA	5-Hydroxyindoleacetic Acid (HIAA), Urine			x																
0080421	VMA U	Vanillylmandelic Acid (VMA), Urine			x																
0080422	HVA U	Homovanillic Acid (HVA), Urine			x																
0080470	VH	Vanillylmandelic Acid (VMA) and Homovanillic Acid (HVA), Urine			x																
0081123	VITA B2	Vitamin B2 (Riboflavin)			x				x												
0090080	Digoxin Level	Digoxin(Change effective as of 04/21/25: Refer to 3019009)																		x	
0090155	Lido	Lidocaine(Change effective as of 04/21/25: Refer to 3019011)																		x	

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0090265	Theophylline	Theophylline(Change effective as of 04/21/25: Refer to 3019010)																		x	
2002734	TR AB	Thyroid Stimulating Hormone Receptor Antibody (TRAb)					x														
2005736	CSF ALKP I	Alkaline Phosphatase Isoenzymes, CSF					x														
2006498	V VIRAL N	Viral Culture, Non-Respiratory			x				x												
2008620	EARLY KID	Allergens, Pediatric, Early Childhood Profile IgE (Inactive as of 04/21/25)																			x
2008621	TODDLER	Allergens, Pediatric, Toddler Profile IgE (Inactive as of 04/21/25)																			x
2010020	MW PROFILE	Allergens, Upper Midwest Profile, IgE (Inactive as of 04/21/25)																			x
2010678	C PLAINS	Allergens, Inhalants, Central Plains Panel IgE (Inactive as of 04/21/25)																			x
2010679	IL INHAL	Allergens, Inhalants, Central Illinois Profile IgE (Inactive as of 04/21/25)																			x

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2011375	MMRV PAN	Occupation Screen - MMR/VZV Antibody Assessment Panel, IgG								x						x					
2011940	TP HPV1618	Human Papillomavirus (HPV), High Risk with 16 and 18 Genotype by PCR, ThinPrep			x	x			x												
2012464	RAG PAN	Allergens, Weed, Ragweed Panel IgE (Inactive as of 04/21/25)																			x
2013225	AERO PED	Allergens, Inhalants, Pediatric Aeroallergen IgE (Inactive as of 04/21/25)																			x
2013881	HDV QNT	Hepatitis Delta Virus by Quantitative PCR			x	x			x												
3000876	ASPERF IGG	Aspergillus fumigatus Antibody IgG			x				x	x						x	x				
3001561	HYPEREXT	Hypersensitivity Pneumonitis Extended Panel (Farmer's Lung Panel)						x				x						x	x		
3002917	NRNL IB S	Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot, Serum			x	x		x	x		x		x					x			
3002929	PNS PAN2	Paraneoplastic Reflexive Panel				x				x		x						x			

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3003539	MPS 4A/6 U	Mucopolysaccharidoses Type 4A/6 Total Chondroitin Sulfate and Dermatan Sulfate with NRE (Sensi-Pro(R)) Quantitative, Urine															x				
3004517	PNSPAN CSF	Paraneoplastic Reflexive Panel, CSF								x		x						x			
3006051	NEURO R4	Autoimmune Neurologic Disease Panel with Reflex, Serum (Change effective as of 4/21/25: Refer to 3018965 in the April Hotline)																		x	
3006052	NEURORCS F2	Autoimmune Neurologic Disease Panel With Reflex, CSF (Change effective as of 4/21/25: Refer to 3018967 in the April Hotline)																		x	
3006201	AIENCDEMS	Autoimmune Encephalopathy/Dementia Panel, Serum								x		x						x			
3006202	AIENCDEMC	Autoimmune Encephalopathy/Dementia Panel, CSF								x		x						x			
3006204	AIEPS	Autoimmune Epilepsy Panel, Serum								x		x						x			
3006205	AIEPC	Autoimmune Epilepsy Panel, CSF								x		x						x			

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3006206	AIMDS	Autoimmune Movement Disorder Panel, Serum (Change effective as of 4/21/25: Refer to 3018964 in the April Hotline)																		x	
3006207	AIMDC	Autoimmune Movement Disorder Panel, CSF (Change effective as of 4/21/25: Refer to 3018966 in the April Hotline)																		x	
3006210	AIPEDS	Autoimmune Pediatric CNS Disorders, Serum						x		x		x	x					x			
3006211	AIPEDC	Autoimmune Pediatric CNS Disorders, CSF						x		x		x	x					x			
3016817	CELIACRFLX	Celiac Disease Reflexive Cascade, Serum						x					x					x			
3016908	HD PCR	Huntington Disease (HD) CAG Repeat Expansion			x	x															
3017103	MCV AB	Mutated Citrullinated Vimentin (MCV) Antibody, Serum (Change effective as of 4/21/25: Refer to 3019462 in the April Hotline)																		x	
3017653	ADMRKS CSF	Alzheimer's Disease Markers, CSF			x				x												

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3017751	ENCEPH-SER	Encephalitis Panel With Reflex to Herpes Simplex Virus Types 1 and 2 Glycoprotein G-Specific Antibodies, IgG, Serum							x	x						x					
3017752	ENCEPH-CSF	Encephalitis Panel With Reflex to Herpes Simplex Virus Types 1 and 2 Glycoprotein G-Specific Antibodies, IgG, CSF							x	x						x					
3018617	HIAA RAND	5-Hydroxyindoleacetic Acid (HIAA) by LC-MS/MS, Random Urine	x																		
3018705	COPEP	Copeptin proAVP, Plasma	x																		
3018832	RB-IHC	Retinoblastoma by Immunohistochemistry	x																		
3018861	VMA RAND	Vanillylmandelic Acid (VMA), Random Urine	x																		
3018862	HVA RAND	Homovanillic Acid (HVA), Random Urine	x																		
3018863	VH RAND	Vanillylmandelic Acid (VMA) and Homovanillic Acid (HVA), Random Urine	x																		
3018866	COMBI PAN2	Dermatomyositis and Polymyositis Panel			x	x												x			
3018867	MYOS EXT2	Extended Myositis Panel			x	x		x				x	x					x			
3018869	ILD PANEL2	Interstitial Lung Disease Autoantibody Panel			x	x												x			

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3018870	DERM PAN2	Dermatomyositis Autoantibody Panel			x	x												x			
3018891	ANNA/PCCA S	PCCA/ANNA by IFA, Serum	x																		
3018940	STR PRE PR	Chimerism, Recipient, Pretransplant Process and Hold	x																		
3018943	HBV TRI PN	HBV Prenatal Triple Panel	x																		
3018964	AIMDS2	Autoimmune Movement Disorder Panel, Serum	x																		
3018965	NEURO R5	Autoimmune Neurologic Disease Panel With Reflex, Serum	x																		
3018966	AIMDC 2	Autoimmune Movement Disorder Panel, CSF	x																		
3018967	NEURORCS F3	Autoimmune Neurologic Disease Panel With Reflex, CSF	x																		
3019004	AMMON PLA	Ammonia Level, Plasma	x																		
3019008	LITHIUM SP	Lithium, Serum/Plasma	x																		
3019009	DIGOXI SP	Digoxin, Serum or Plasma	x																		
3019010	THEOP SP	Theophylline, Serum or Plasma	x																		
3019011	LIDOC SP	Lidocaine, Serum or Plasma	x																		
3019017	PTAU217	Phospho-Tau 217, Plasma	x																		

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3019199	SO MYB ISH	MYB by In Situ Hybridization Stain Only	x																		
3019329	ABPA PAN	ABPA With Quantitative A. Fumigatus IgG	x																		
3019462	ANTI-MCVAB	Anti-Mutated Citrullinated Vimentin (MCV) Antibody, Serum	x																		

TEST CHANGE

Osteocalcin by Electrochemiluminescent Immunoassay

0020728, OSTEO NMID

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube. Also acceptable: Lavender (K2EDTA~~K2 EDTA~~ or K3EDTA~~K3 EDTA~~), pink (K2EDTA), or green (lithium heparin).
Specimen Preparation:	Allow serum tube to sit for 15-20 minutes at room temperature for proper clot formation. Centrifuge and separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum or plasma to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.3 mL)
Transport Temperature:	Frozen.
Unacceptable Conditions:	Hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 8 hours; Refrigerated: 72 hours; Frozen: 3 months
Methodology:	Quantitative Electrochemiluminescent Immunoassay
Performed:	Sun~~Tue~~-Sat
Reported:	Within 24 hours ~~1-4 days~~
Note:	
CPT Codes:	83937
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

In patients with renal failure, the osteocalcin result may be directly elevated~~,~~ due to impaired clearance, and/or indirectly elevated due to renal osteodystrophy.

Reference Interval:

Age	Male	Female
6 months-6 years	39-121 ng/mL	44-130 ng/mL
7-9 years	66-182 ng/mL	73-206 ng/mL
10-12 years	85-232 ng/mL	77-262 ng/mL
13-15 years	70-336 ng/mL	33-222 ng/mL
16-17 years	43-237 ng/mL	24-99 ng/mL
18 years and older	8-36 ng/mL	8-36 ng/mL

TEST CHANGE

Procalcitonin

0020763, PCT

Specimen Requirements:	
Patient Preparation:	~~The same specimen type (serum, plasma) should be used throughout the patient's clinical course.~~
Collect:	Serum~~Plasma separator tube (PST) or serum~~ separator tube (SST), K2EDTA, K3EDTA, or li heparin plasma.~~).~~
Specimen Preparation:	Allow~~For~~ serum ~~specimens, ensure that complete clot formation has taken place prior to centrifugation. If the~~ specimen to clot completely at room temperature.~~is centrifuged before complete clot formation, the presence of fibrin may cause erroneous results. The use of plasma is recommended for rapid turnaround of results. For accurate results, serum and plasma specimens should be free of fibrin, red blood cells, and other particulate matter.~~ Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1~~2~~ mL serum or plasma to an ARUP standard transport tube. (Min: 0.5~~3~~ mL)
Transport Temperature:	Frozen ~~Refrigerated.~~
Unacceptable Conditions:	Hemolyzed specimens. Specimens stabilized with azide. ~~Specimens collected in citrate anticoagulant. Specimens that are heat-inactivated, pooled, grossly hemolyzed, contain obvious microbial contamination or fungal growth should not be used.~~
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 48 hours~~5 days~~; Frozen: 1 year~~15 days~~
Methodology:	Quantitative Electroc~~C~~hemiluminescent Immunoassay (ECLIA)
Performed:	Sun-Sat
Reported:	Within 24 hours
Note:	~~Procalcitonin levels below 0.50 ng/mL do not exclude an infection, because localized infections (without systemic signs) may also be associated with such low levels.~~

CPT Codes:	84145
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

ICU Admission Risk Assessment: On the first day of ICU admission, procalcitonin concentrations~~Procalcitonin >2.00 ng/mL: Procalcitonin levels~~ above 2.00 ng/mL ~~on the first day of ICU admission~~ represent a high risk for progression to severe sepsis and/or septic shock.

Procalcitonin concentrations~~<0.50 ng/mL: Procalcitonin levels~~ below 0.50 ng/mL on the first day of ICU admission represent a low risk for progression to severe sepsis and/or septic shock. Concentrations below 0.50 ng/mL do not exclude an

~~If the procalcitonin measurement is performed shortly after the systemic~~ infection. Increased ~~process has started (usually less than 6 hours), these values may still be low. As various noninfectious conditions are known to induce~~ procalcitonin concentrations can occur without infection. Use in conjunction with other clinical and laboratory findings.

This test may also be used to determine 28-day mortality risk for individuals with septic shock or severe sepsis in acute settings, as an aid in determining whether antibiotic treatment may be discontinued in individuals with confirmed or suspected sepsis, or to aid in antibiotic therapy decision-making for individuals with confirmed or suspected lower respiratory tract infections in inpatient or emergency settings.

For more information about~~well,~~ procalcitonin test result interpretation, refer to arupconsult.com/ati/procalcitonin~~levels between 0.50 ng/mL and 2.00 ng/mL should be reviewed carefully to take into account the specific clinical background and condition(s) of the individual patient~~.

Reference Interval:

<= ~~Less than~~ 0.08~~07~~ ng/mL

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

TEST CHANGE

Varicella-Zoster Virus Antibodies, IgG and IgM

0050162, VZV PAN

Specimen Requirements:	
Patient Preparation:	
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: 0.2 mL) Parallel testing is preferred and convalescent specimens must be received within 30 days from receipt of the acute specimens. Mark specimens plainly as "acute" or "convalescent."
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	See individual components.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay/Semi-Quantitative Chemiluminescent Immunoassay
Performed:	Sun-Sat
Reported:	1-5 days
Note:	
CPT Codes:	86787 x2
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Component Result	Interpretation
Varicella-Zoster Virus Antibody, IgG	<=<1.0.99 S/CO: Negative. No significant level of detectable varicella-zoster IgG antibody. >=1.000 S/CO: Positive. IgG antibody to varicella-zoster

	detected, which may indicate a current or past varicella-zoster infection.	
Varicella-Zoster Virus Antibody, IgM	0.90 ISR or less: Negative - No significant level of detectable varicella-zoster virus IgM antibody. 0.91-1.09 ISR: Equivocal - Repeat testing in 10-14 days may be helpful. 1.10 ISR or greater: Positive - Significant level of detectable varicella-zoster virus IgM antibody. Indicative of current or recent infection. However, low levels of IgM antibodies may occasionally persist for more than 12 months post-infection or immunization.	

Reference Interval:

Test Number	Components	Reference Interval
	Varicella-Zoster Virus Antibody, IgM	0.90 ISR or less
	Varicella-Zoster Virus Ab, IgG	<=0.99

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

TEST CHANGE

Varicella-Zoster Virus Antibody, IgG

0050167, VZE

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Allow specimen to clot completely at room temperature. Separate from cells ASAP or within 2 hours of collection. Transfer 1 mL serum an ARUP standard transport tube. (Min: 0.5 mL) Parallel testing is preferred and convalescent specimens must be received within 30 days from receipt of the acute specimens.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Contaminated, heat-inactivated, grossly hemolyzed, lipemic, or severely icteric specimens.
Remarks:	Label specimens plainly as acute or convalescent.
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Chemiluminescent Immunoassay
Performed:	Sun-Sat
Reported:	Within 24 hours
Note:	For CSF specimens, refer to Varicella-Zoster Virus Antibody, IgG, CSF (ARUP test code 0054444).
CPT Codes:	86787
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

The best evidence for current infection is a significant change on two appropriately timed specimens, where both tests are done in the same laboratory at the same time.

Reference Interval:

Effective October 7, 2024

<= ~~<1~~ 0.99 S/CO: Negative - No significant level of detectable varicella-zoster IgG antibody.

>=1.000 S/CO: Positive - IgG antibody to varicella-zoster detected, which may indicate a current or past varicella-zoster infection.

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

TEST CHANGE

Varicella-Zoster Virus Antibody, IgG, CSF

0054444, VZECSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	Transfer 0.5 mL CSF to an ARUP standard transport tube. (Min: 0.3 mL)
Transport Temperature:	Refrigerated. Also acceptable: Frozen.
Unacceptable Conditions:	Contaminated, heat-inactivated, hemolyzed, or xanthochromic specimens.
Remarks:	
Stability:	Ambient: 8 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Semi-Quantitative Chemiluminescent Immunoassay
Performed:	Sun-Sat
Reported:	Within 24 hours
Note:	
CPT Codes:	86787
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.

Interpretive Data:

The detection of antibodies to varicella-zoster in CSF may indicate central nervous system infection. However, consideration must be given to possible contamination by blood or transfer of serum antibodies across the blood-brain barrier.

Reference Interval:

Effective October 7, 2024

<=~~<1.~~0.99 S/CO	Negative - No significant level of IgG antibody to varicella-zoster virus detected.
>=1.00~~0~~ S/CO	Positive - IgG antibody to varicella-zoster virus detected,

	which may indicate a current or past varicella-zoster infection.	

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

TEST CHANGE

Human Herpesvirus 6 (HHV-6A and HHV-6B) by Quantitative PCR

0060071, HHV6PCR

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA), pink (K2EDTA), serum separator tube, or CSF.
Specimen Preparation:	Separate serum or plasma from cells. Transfer 1 mL serum, plasma or CSF to a sterile container. (Min: 0.5 mL)
Transport Temperature:	Frozen.
Unacceptable Conditions:	Heparinized specimens, tissues in optimal cutting temperature compound.
Remarks:	Specimen source required.
Stability:	Ambient: 24 hours; Refrigerated: 5 days; Frozen: 3 months
Methodology:	Quantitative Polymerase Chain Reaction
Performed:	Tue-Sat
Reported:	1-4 days
Note:	The limit of quantification for this DNA assay is 2.73~~.0~~ log copies/mL (5001~~,000~~ copies/mL) or 3.1 log IU/mL (1250 IU/mL).~~)~~. If the assay DID NOT DETECT the virus, the test result will be reported as "<2.73~~.0~~ log copies/mL (<5001~~,000~~ copies/mL). and <3.1 log IU/mL (<1250 IU/mL)." If the assay DETECTED the presence of the virus but was not able to accurately quantify the number of copies, the test result will be reported as "Not Quantified." This assay detects and quantifies HHV6 subtypes A and B.
CPT Codes:	87533
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

The quantitative range of this assay is 2.73~~.0~~-6.70 log copies/mL (500-51~~,000-999,000~~ copies/mL) or 3.1-7.1 log IU/mL (1250-12,500,000 IU/mL).

1 copies/mL is approximately 2.5 IU/mL.~~)~~.

A negative result (less than 2.73.0 log copies/mL or less than 500 copies/mL; less than 3.1 log IU/mL or less than 1250 IU1,000 copies/mL) does not rule out the presence of PCR inhibitors in the patient specimen or HHV6 DNA in concentrations below the level of detection of the assay. Inhibition may also lead to underestimation of viral quantitation.

~~Caution should be taken when interpreting results generated by different assay methodologies.~~

~~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:

Not detected

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

TEST CHANGE

Acid-Fast Bacillus (AFB) Culture and AFB Stain

0060152, MC AFB

Specimen Requirements:	
Patient Preparation:	Recommended collection: Three sputum specimens at 8-24 hour intervals (24 hours when possible) and at least one first-morning specimen. An individual order must be submitted for each specimen.
Collect:	Respiratory specimens. Also acceptable: Body fluid, CSF, gastric aspirate, tissue, or urine.
Specimen Preparation:	Place each specimen into 50 ml sterile specimen transport tube (ARUP Supply #29582) and place in an individually sealed bag. Respiratory Specimens: Transfer (for each collection) 5-10 mL to a sterile container. (Min: 1 mL) Body Fluids: Transfer 5 mL to a sterile container. (Min: 1 mL culture only) CSF: Transfer 5 mL to a sterile container. (Min: 1 mL culture only. Min: 5 mL culture and stain) Gastric Aspirates: Must be neutralized (pH7) with sodium carbonate if transport is delayed for more than four hours. Transfer 5-10 mL to a sterile container. (Min: 1 mL) Tissue: Transfer to a sterile container. (Min: Visible, for small tissue that cannot be ground, acid fast stain will not be performed.) Urine: Transfer at least 40 mL to a sterile container. (Min: 10 mL culture only. Min: 40 mL culture and stain)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Dry material or material collected and transported on a swab. Acid Fast Stain: Stool, blood, bone marrow, grossly bloody specimens.
Remarks:	Specimen source required.
Stability:	Ambient: 24 hours; Refrigerated: 1 week; Frozen: Unacceptable~~2 weeks~~
Methodology:	Stain/Culture/Matrix-Assisted Laser Desorption Ionization-Time of Flight (MALDI-TOF) Mass Spectrometry/16SrDNA Sequencing/Polymerase Chain Reaction/Broth Microdilution
Performed:	Sun-Sat
Reported:	1-62 days

Note:	Respiratory specimens, body fluids, CSF, gastric aspirates that are under 5 mL, and urine specimens under 40 mL will receive a volume suboptimal disclaimer in the report. Positive cultures are reported as soon as detected. AFB stain, AFB identification of positives, and susceptibility tests are billed separately from culture. Identification of positive culture is billed by matrix-assisted laser desorption ionization (MALDI), PCR) and/or sequencing tests performed. Mycobacterium tuberculosis Complex Detection and Rifampin Resistance by PCR (ARUP test code 2010775) is available for respiratory, CSF, tissue and~~or~~ body fluid specimens. The laboratory should be notified when the presence of Mycobacterium genavense or Mycobacterium haemophilum is suspected, as these organisms will not grow on media routinely used for Mycobacterium isolation. The laboratory should be notified when M. xenopi is suspected, as this organism requires a different temperature from routine culture setup. The laboratory should be notified if the specimen is from a cystic fibrosis patient, as these specimens need additional decontamination from routine culture setup. Susceptibility will be performed on organisms isolated from a sterile source and isolates of Mycobacterium tuberculosis complex, M. chelonae, M. abscesses, M. fortuitum complex, M. immunogenum, M. mucogenicum. Susceptibility testing will be performed by request only on M. kansasii and M. marinum. Susceptibility testing of M. gordonae is inappropriate. For AFB susceptibility information, refer to Antimicrobial Susceptibility - AFB Mycobacteria (ARUP test code 0060217). For AFB culture on blood refer to Culture, Acid-Fast Bacillus, Blood (ARUP test code 0060060).
CPT Codes:	87116; CPT codes for identification and susceptibility vary based on method.
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	

Effective May 20, 2013

Culture negative for acid fast bacilli.
Identification performed on positives.
Susceptibility performed on all initial isolates of *M. tuberculosis* complex.
Susceptibility performed on significant isolates of *Mycobacterium* other than *M. tuberculosis* complex isolates.

TEST CHANGE

Antimicrobial Susceptibility - Staphylococcus

0060707, MA STAPH

Specimen Requirements:	
Patient Preparation:	
Collect:	Actively growing isolate in pure culture.
Specimen Preparation:	Transport sealed container with pure culture on agar slant. Place each specimen in an individually sealed bag.
Transport Temperature:	Room temperature.
Unacceptable Conditions:	Mixed cultures or nonviable~~non-viable~~ organisms.
Remarks:	Isolate identification and specimen source required.
Stability:	Ambient: 1 week; Refrigerated: 1 week; Frozen: Unacceptable
Methodology:	Automated Broth Microdilution
Performed:	Sun-Sat
Reported:	2-54 days
Note:	The following agents are available for testing: clindamycin, daptomycin, erythromycin, gentamicin, levofloxacin, linezolid, nitrofurantoin, oxacillin, penicillin, quinupristin/dalfopristin, rifampin, tetracycline, trimethoprim/sulfamethoxazole, and vancomycin. For serious infections with coagulase-negative staphylococci, testing for the presence of mecA may be appropriate and will be performed in order to interpret the results for b-lactam agents. Selective reporting by organism and source. For mecA gene testing, refer to Antimicrobial Susceptibility - mecA Gene by PCR (0060211). An additional processing fee will be billed for all organisms not submitted in pure culture, as indicated in the specimen requirements. If species identification is not provided, identification will be performed at ARUP. Additional charges apply.
CPT Codes:	87186
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Susceptible, intermediate, or resistant.

TEST CHANGE

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

0060738, MC AFBR

Specimen Requirements:	
Patient Preparation:	Three sputum specimens should be collected at 8-24 hour intervals (24 hours when possible) and at least one first-morning specimen. An individual order must be submitted for each specimen.
Collect:	Respiratory specimen, pleural fluid, CSF, tissue, gastric aspirate
Specimen Preparation:	Transfer (for each collection) 5-10 mL specimen or visible tissue to a sterile container, 50 ml sterile specimen transport tube preferred (Client supply number # 29582). (Min: 1 mL) Place each specimen in an individually sealed bag.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Multiple same-site specimens (more than one in 24 hours), dry material, or material collected and transported on a swab.
Remarks:	Specimen source required.
Stability:	Ambient: 24 hours; Refrigerated: 1 week; Frozen: Unacceptable~~2 weeks~~
Methodology:	Stain/Culture/16S rDNA Sequencing/ Broth Microdilution/Polymerase Chain Reaction/ Matrix-Assisted Laser Desorption Ionization-Time of Flight (MALDI-TOF) Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-62 days
Note:	Respiratory specimens under 5 mL will receive a volume suboptimal disclaimer in the report. Positive cultures are reported as soon as detected. AFB stain, AFB identification of positives, and susceptibility tests are billed separately from culture. Identification of positive culture is billed by matrix-assisted laser desorption ionization (MALDI), PCR,~~)~~ and/or sequencing tests performed. The laboratory should be notified when the presence of Mycobacterium genavense or

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

Reference Interval:

Culture negative for acid-fast bacilli.
Identification ordered and performed on positives.
Susceptibility performed on all initial isolates of *M. tuberculosis* complex.
Susceptibility performed on *Mycobacterium* other than *M. tuberculosis* complex isolates by request only.
Susceptibility testing of *M. gordonae* is inappropriate.

TEST CHANGE

5-Hydroxyindoleacetic Acid (HIAA), Urine

0080420, HIAA

Specimen Requirements:	
Patient Preparation:	Patients should abstain, if possible, from medications, over-the-counter drugs, and herbal remedies for at least 72 hours prior to the test. Foods rich in serotonin (avocados, bananas, eggplant, pineapple, plums, tomatoes, walnuts) and medications that may affect metabolism of serotonin must be avoided at least 72 hours before and during collection of urine for HIAA.
Collect:	24-hour ~~or random~~ urine. Refrigerate 24-hour specimens during collection.
Specimen Preparation:	Transfer 4 mL aliquot from a well-mixed 24-hour ~~or random~~ collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Any sample except urine.
Remarks:	Please see Note for a more comprehensive list of dietary restrictions.
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 months
Methodology:	Quantitative High Performance Liquid Chromatography - Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-5 days
Note:	Foods and medications associated with altered urinary HIAA results: Decreased HIAA: Aspirin, chlorpromazine (Thorazine), corticotropin, dihydroxyphenylacetic acid, alcohol, gentisic acid, homogentisic acid, hydrazine derivatives, imipramine (Tofranil(R)), isocarboxazid (Marplan), keto acids, levodopa, MAO inhibitors, methenamine, methyldopa (Aldomet(R)), perchlorperazine, phenothiazines (Compazine(R)), promazine, promethazine (Mepergan(R)). Increased HIAA: Acetaminophen, acetanilide, caffeine, coumaric acid, diazepam

	(Valium(R)), ephedrine, fluorouracil, glycerol guaiacolate (Guaifenesin), melphalan (Alkeran(R)), mephenesin, methamphetamine (Desoxyn), methocarbamol (Robaxin(R)), naproxen, nicotine, phenacetin, phenmetrazine, phenobarbital, phentolamine, rauwolfia, reserpine.
CPT Codes:	83497
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

5-Hydroxyindoleacetic acid (5-HIAA) results are expressed as a ratio to creatinine excretion (mg/g CRT). No reference interval is available for results reported in units of mg/L. Increased urine 5-HIAA concentration is common and may be the result of improper specimen collection, consumption of serotonin containing foods or dietary supplements, drug interference, or malabsorption syndromes. Significant elevation (ten times the upper reference limit) of urine 5-HIAA may indicate the presence of a carcinoid tumor.

Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation.

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:

<table>
<tr><th>Test Number</th><th>Components</th><th>Reference Interval</th></tr>
<tr><td></td><td>5-HIAA Urine - per 24h</td><td>0.0-15.0 mg/d</td></tr>
<tr><td></td><td>5-HIAA Urine - per volume</td><td>The HIAA-to-creatinine ratio will be reported whenever the urine collection is random or other than 24 hours, or the urine volume is less than 400 mL/24 hours.
0-14 mg/g crt</td></tr>
<tr><td></td><td>Creatinine, Urine - per 24h</td><td></td></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Age</th><th>Male (mg/d)</th><th>Female (mg/d)</th></tr>
<tr><td>3-8 years</td><td>140-700</td><td>140-700</td></tr>
<tr><td>9-12 years</td><td>300-1300</td><td>300-1300</td></tr>
<tr><td>13-17 years</td><td>500-2300</td><td>400-1600</td></tr>
<tr><td>18-50 years</td><td>1000-2500</td><td>700-1600</td></tr>
<tr><td>51-80 years</td><td>800-2100</td><td>500-1400</td></tr>
<tr><td>81 years and older</td><td>600-2000</td><td>400-1300</td></tr>
</table>
</td></tr>
</table>

TEST CHANGE

Vanillylmandelic Acid (VMA), Urine

0080421, VMA U

Specimen Requirements:	
Patient Preparation:	Abstain from medications for 72 hours prior to collection.
Collect:	24-hour ~~or random~~ urine. Refrigerate 24-hour specimens during collection.
Specimen Preparation:	Transfer 4 mL aliquot from a well-mixed 24-hour ~~or random~~ collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimen types other than urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun, Tue, Wed, Thu, Fri, Sat
Reported:	1-5 days
Note:	Moderately elevated VMA (vanillylmandelic acid) can be caused by a variety of factors such as essential hypertension, intense anxiety, intense physical exercise, and numerous drug interactions (including some over-the-counter medications and herbal products). Medications that may interfere with catecholamines and their metabolites include amphetamines and amphetamine-like compounds, appetite suppressants, bromocriptine, buspirone, caffeine, chlorpromazine, clonidine, disulfiram, diuretics (in doses sufficient to deplete sodium), epinephrine, glucagon, guanethidine, histamine, hydrazine derivatives, imipramine, levodopa (L-dopa, Sinemet(R)), lithium, MAO inhibitors, melatonin, methyldopa (Aldomet(R)), morphine, nitroglycerin, nose drops, propafenone (Rythmol), radiographic agents, rauwolfia alkaloids (Reserpine), tricyclic antidepressants, and vasodilators. The effects of some drugs on catecholamine metabolite results may not be predictable.

CPT Codes:	84585
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Vanillylmandelic acid (VMA) results are expressed as a ratio to creatinine excretion (mg/g CRT). No reference interval is available for results reported in units of mg/L. Slight or moderate increases in catecholamine metabolites may be due to extreme anxiety, essential hypertension, intense physical exercise, or drug interactions. Significant increase of one or more catecholamine metabolites (several times the upper reference limit) is associated with an increased probability of a secreting neuroendocrine tumor.

Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation.

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

Reference Interval:

Test Number	Components	Reference Interval
	Creatinine, Urine - per 24h	
		Age: Male (mg/d): Female (mg/d) 3-8 years: 140-700: 140-700 9-12 years: 300-1300: 300-1300 13-17 years: 500-2300: 400-1600 18-50 years: 1000-2500: 700-1600 51-80 years: 800-2100: 500-1400 81 years and older: 600-2000: 400-1300
	Vanillylmandelic Acid - per 24h	18 years and older: 0.0-7.0 mg/d
	Vanillylmandelic Acid - ratio to CRT	
		Age: mg/g CRT 0-2 years: 0-27 3-5 years: 0-13 6-17 years: 0-9 18 years and older: 0-6

TEST CHANGE

Homovanillic Acid (HVA), Urine

0080422, HVA U

Specimen Requirements:	
Patient Preparation:	Abstain from medications for 72 hours prior to collection.
Collect:	24-hour ~~or random~~ urine. Refrigerate 24-hour specimens during collection.
Specimen Preparation:	Transfer 4 mL aliquot from a well-mixed 24-hour ~~or random~~ collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimen types other than urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun, Tue, Wed, Thu, Fri, Sat
Reported:	1-5 days
Note:	Moderately elevated HVA (homovanillic acid) may be caused by a variety of factors such as essential hypertension, intense anxiety, intense physical exercise, and numerous drug interactions (including some over-the-counter medications and herbal products). Medications that may interfere with catecholamines and their metabolites include amphetamines and amphetamine-like compounds, appetite suppressants, bromocriptine, buspirone, caffeine, chlorpromazine, clonidine, disulfiram, diuretics (in doses sufficient to deplete sodium), epinephrine, glucagon, guanethidine, histamine, hydrazine derivatives, imipramine, levodopa (L-dopa, Sinemet(R)), lithium, MAO inhibitors, melatonin, methyldopa (Aldomet(R)), morphine, nitroglycerin, nose drops, propafenone (Rythmol), radiographic agents, rauwolfia alkaloids (Reserpine), and vasodilators. The effects of some drugs on catecholamine metabolite results may not be predictable.

CPT Codes:	83150
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Homovanillic acid (HVA) results are expressed as a ratio to creatinine excretion (mg/g CRT). No reference interval is available for results reported in units of mg/L. Slight or moderate increases in catecholamine metabolites may be due to extreme anxiety, essential hypertension, intense physical exercise, or drug interactions. Significant increase of one or more catecholamine metabolites (several times the upper reference limit) is associated with an increased probability of a secreting neuroendocrine tumor.

Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation.

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

Reference Interval:

Test Number	Components	Reference Interval
	Homovanillic Acid - per 24h	18 years and older: 0.0-15.0 mg/d
	Homovanillic Acid - ratio to CRT	

Age	mg/g CRT
0-2 years	0-42
3-5 years	0-22
6-17 years	0-15
18 years and older	0-8

	Creatinine, Urine - per 24h

Age	Male (mg/d)	Female (mg/d)
3-8 years	140-700	140-700
9-12 years	300-1300	300-1300
13-17 years	500-2300	400-1600
18-50 years	1000-2500	700-1600
51-80 years	800-2100	500-1400
81 years and older	600-2000	400-1300

Effective May 19, 2014

TEST CHANGE

Vanillylmandelic Acid (VMA) and Homovanillic Acid (HVA), Urine

0080470, VH

Specimen Requirements:	
Patient Preparation:	Abstain from medications for 72 hours prior to collection.
Collect:	24-hour ~~or random~~ urine. Refrigerate 24-hour specimen during collection.
Specimen Preparation:	Transfer 4 mL aliquot from a well mixed 24-hour ~~or random~~ collection to an ARUP Standard Transport Tube. (Min: 1 mL) Record total volume and collection time interval on transport tube and test request form.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimen types other than urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun, Tue, Wed, Thu, Fri, Sat
Reported:	1-5 days
Note:	Moderately elevated HVA (homovanillic acid) and VMA (vanillylmandelic acid) can be caused by a variety of factors such as essential hypertension, intense anxiety, intense physical exercise, and numerous drug interactions (including some over-the-counter medications and herbal products). Medications that may interfere with catecholamines and their metabolites include amphetamines and amphetamine-like compounds, appetite suppressants, bromocriptine, buspirone, caffeine, chlorpromazine, clonidine, disulfiram, diuretics (in doses sufficient to deplete sodium), epinephrine, glucagon, guanethidine, histamine, hydrazine derivatives, imipramine, levodopa (L-dopa, Sinemet), lithium, MAO inhibitors, melatonin, methyldopa (Aldomet), morphine, nitroglycerin, nose drops, propafenone (Rythmol), radiographic agents, rauwolfia alkaloids (Reserpine), tricyclic antidepressants, and vasodilators. The effects of some drugs on catecholamine metabolite results may not be predicable.

CPT Codes:	83150; 84585
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Vanillylmandelic acid (VMA) and homovanillic acid (HVA) results are expressed as a ratio to creatinine excretion (mg/g CRT). No reference interval is available for results reported in units of mg/L. Slight or moderate increases in catecholamine metabolites may be due to extreme anxiety, essential hypertension, intense physical exercise, or drug interactions. Significant increase of one or more catecholamine metabolites (several times the upper reference limit) is associated with an increased probability of a secreting neuroendocrine tumor.

Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation.

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

Reference Interval:

Test Number	Components	Reference Interval
	Creatinine, Urine - per 24h	
		Age: Male (mg/d): Female (mg/d) 3-8 years: 140-700: 140-700 9-12 years: 300-1300: 300-1300 13-17 years: 500-2300: 400-1600 18-50 years: 1000-2500: 700-1600 51-80 years: 800-2100: 500-1400 81 years and older: 600-2000: 400-1300
	Homovanillic Acid - per 24h	18 years and older: 0.0-15.0 mg/d
	Vanillylmandelic Acid - per 24h	18 years and older: 0.0-7.0 mg/d
	Vanillylmandelic Acid - ratio to CRT	
		Age: mg/g CRT 0-2 years: 0-27 3-5 years: 0-13 6-17 years: 0-9 18 years and older: 0-6
	Homovanillic Acid - ratio to CRT	
		Age: mg/g CRT 0-2 years: 0-42 3-5 years: 0-22 6-17 years: 0-15 18 years and older: 0-8

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Effective Date: April 21, 2025

TEST CHANGE

Vitamin B2 (Riboflavin)

0081123, VITA B2

Specimen Requirements:	
Patient Preparation:	
Collect:	Green (sSodium or lithium heparinLithium Heparin) or plasma separator tubePlasma Separator Tube (PST).
Specimen Preparation:	Protect from light during storage and shipment. Separate plasma from cells, protect from light, transfer 1 mL plasma to an ARUP Amber Transport Tube, and freeze within 1 hour of collection. Transfer 1 mL plasma to an ARUP amber transport tube. (Min: 0.5 mL) Separate light-protected specimens must be submitted when multiple tests are ordered.
Transport Temperature:	RefrigeratedFrozen.
Unacceptable Conditions:	Serum, whole blood, or body fluids. EDTA preserved tubes. Lipemic specimens.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 2 weeks5 days; Frozen: 1 month
Methodology:	Quantitative High Performance Liquid Chromatography (HPLC)
Performed:	Sun, Wed, Fri
Reported:	1-6 days
Note:	
CPT Codes:	84252
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:

5-50 nmol/L

TEST CHANGE

Thyroid Stimulating Hormone Receptor Antibody (TRAb)

2002734, TR AB

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Allow serum separator to sit for 15-20 minutes at room temperature for proper clot formation. Centrifuge and separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.3 mL)
Transport Temperature:	Preferred transport temp: Frozen. Also acceptable: Refrigerated.
Unacceptable Conditions:	Plasma. Grossly hemolyzed or lipemic specimens.
Remarks:	
Stability:	Ambient: 24 hours; Refrigerated: 6 days; Frozen: 12 months
Methodology:	Quantitative Electrochemiluminescent Immunoassay (ECLIA)
Performed:	Sun-Sat
Reported:	Within 24 hours ~~1-2 days~~
Note:	
CPT Codes:	83520
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Reference Interval:	
Less than or equal to 1.75 IU/L	

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Effective Date: April 21, 2025

TEST CHANGE

Alkaline Phosphatase Isoenzymes, CSF

2005736, CSF ALKP I

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF~~.~~
Specimen Preparation:	Transfer 2 mL CSF to an ARUP standard transport tube~~Standard Transport Tube~~ and refrigerate or freeze ASAP or within 2 hours. (Min: 1 mL)
Transport Temperature:	Refrigerated or frozen.
Unacceptable Conditions:	Specimens collected in EDTA, potassium oxalate, sodium citrate, or sodium fluoride. Grossly hemolyzed or lipemic specimens
Remarks:	
Stability:	After separation from cells: Ambient: 2 hours; Refrigerated: 1 week; Frozen: 1 month
Methodology:	Quantitative Heat Inactivation/Enzymatic Assay
Performed:	Sun-Sat
Reported:	1-4~~3~~ days
Note:	
CPT Codes:	84075; 84080
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.~~

Reference Interval:

Effective January 17, 2012

Total Alkaline Phosphatase: 0-1 U/L

Deleted Cells

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Effective Date: April 21, 2025

TEST CHANGE

Viral Culture, Non-Respiratory

2006498, V VIRAL N

Specimen Requirements:	
Patient Preparation:	
Collect:	Swab (eyeEye swab, lesion, genital, rectal, throat, vesicle, etc.), stool, tissue (brain, colon, kidney, liver, etc.), or urine.
Specimen Preparation:	Fluid: Transfer 3 mL specimen to a sterile container. (Min: 0.5 mL) Also acceptable: Transfer to 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. Stool: Transfer 1 mL stool to an unpreserved stool transport vial (ARUP supply #40910) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 0.5 mL) Swab or Tissue: Place in 3 mL viral transport media (ARUP Supply #12884) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787.
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Calcium alginate, eSwab, dry, or wood swabs.
Remarks:	Specimen source preferred.
Stability:	Ambient: 2 hours; Refrigerated: 72 hours; Frozen: Unacceptable
Methodology:	Cell Culture
Performed:	Sun-Sat
Reported:	3-14 days
Note:	Identification is billed separately from culture. Viruses that can be isolated by culture include adenovirus, cytomegalovirus, enterovirus, herpes simplex virus, and varicella-zoster virus. However, virus-specific tests are recommended and are listed below. The following test is standard-of-care for diagnosing adenovirus infection in tissue specimens: Adenovirus by Qualitative PCR (ARUP test code 2007473) The following tests are standard-of-care for diagnosing viral infection in CSF specimens: Cytomegalovirus by Qualitative PCR (ARUP test code 0060040) Enterovirus by PCR (ARUP test code 0050249) Epstein-Barr Virus by Qualitative PCR (ARUP test code

	0050246) Herpes Simplex Virus (HSV-1/HSV-2) Subtype by PCR (ARUP test code 2010095) Varicella-Zoster Virus by PCR (ARUP test code 0060042) The following tests are recommended for detecting a specific virus in specimens other than CSF. If a specific virus is suspected, please indicate the virus on the test request. Cytomegalovirus. Refer to Cytomegalovirus Rapid Culture (ARUP test code 0065004) Human metapneumovirus (hMPV). hMPV can be detected by DFA staining or nucleic acid testing. Refer to Human Metapneumovirus ~~by~~ DFA (ARUP test code 0060779) and Respiratory Viruses DFA (ARUP test code 0060289), or Human Metapneumovirus by PCR (ARUP test code 0060784) Mumps virus. Refer to Mumps Virus by PCR (ARUP test code 3000523). Respiratory syncytial virus (RSV). Refer to Respiratory Syncytial Virus DFA (ARUP test code 0060288) Respiratory viruses. Refer to Respiratory Viruses DFA (ARUP test code 0060289); Viral Culture, Respiratory (ARUP test code 2006499); or Respiratory Viruses DFA with Reflex to Viral Culture, Respiratory (ARUP test code 0060281) Varicella-zoster virus. Refer to Varicella-Zoster Virus DFA with Reflex to Varicella-Zoster Virus Culture (ARUP test code 0060282) Enteric adenovirus 40-41 and rotavirus in stool. Refer to Gastrointestinal Pathogens Panel by PCR (ARUP test code 3003279)
CPT Codes:	87252; if definitive identification required, add 87253
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	Refer to report.
Reference Interval:	Negative.

Inserted Cells

TEST CHANGE

Occupation Screen - MMR/VZV Antibody Assessment Panel, IgG

2011375, MMRV PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 1.0 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Body fluid, CSF, plasma or urine specimens. Contaminated, heat-inactivated, hemolyzed, lipemic, or severely icteric specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Semi-Quantitative Chemiluminescent Immunoassay
Performed:	Sun-Sat
Reported:	Within 24 hours
Note:	
CPT Codes:	86765; 86735; 86762; 86787
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
	Measles Virus (Rubeola) Antibody IgG	13.4 AU/mL or less: Negative - No significant level of detectable measles (rubeola) IgG antibody. 13.5-16.4 AU/mL: Equivocal - Repeat testing in 10-14 days may be helpful. 16.5 AU/mL or greater: Positive - IgG antibody to measles (rubeola) detected, which may

		indicate a current or past exposure/immunization to measles (rubeola).
	Mumps Virus Antibody IgG	8.9 AU/mL or less: Negative - No significant level of detectable IgG mumps virus antibody. 9.0-10.9 AU/mL: Equivocal - Repeat testing in 10-14 days may be helpful. 11.0 AU/mL or greater: Positive - IgG antibody to mumps virus detected, which may indicate a current or past exposure/immunization to mumps virus.
	Rubella Virus Antibody IgG	Less than 9 IU/mL: Not Detected. 9-9.9 IU/mL: Indeterminate - Repeat testing in 10-14 days may be helpful. 10 IU/mL or greater: Detected.
	Varicella-zoster Virus Ab IgG	<=~~<1.~~0.99 S/CO: Negative - No significant level of detectable varicella-zoster IgG antibody. >=1.000~~0~~ S/CO: Positive - IgG antibody to varicella-zoster detected, which may indicate a current or past varicella-zoster infection.

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

TEST CHANGE

Human Papillomavirus (HPV), High Risk with 16 and 18 Genotype by PCR, ThinPrep

2011940, TP HPV1618

Specimen Requirements:	
Patient Preparation:	
Collect:	Provider-collected cervical or anal specimen with broom, brush or spatula from ThinPrep collection kit. (ARUP supply #41785 ThinPrep (Vial and Broom) or #51369 ThinPrep (Vial, Brush and Spatula). Patient-collected vaginal specimen, obtained in a healthcare setting, using the FLOQSwab in Vaginal Self-Collect Kit (ARUP supply # 64594). Collection supplies available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. ~~Cervical, anal, or vaginal specimen with brush or spatula from ThinPrep kit and place in PreservCyt Media~~
Specimen Preparation:	Cervical or anal specimen with brush or spatula from ThinPrep kit: Swirl the collection device vigorously in the PreservCyt Media. Patient-collected vaginal swab: Release cells from FLOQswab by fully immersing in Preservcyt media and swirl along the inner vial wall for at least 20 seconds. Draw swab up, draining all fluid from swab into container. Discard swab. ~~Mix well. Transfer 3 mL to an ARUP Standard Transport Tube. (Min 1.5 mL). If test is being used for primary screening, submit specimen aliquot and retain the original specimen at the client site.~~
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Bloody or dark brown specimens. Dry swab or specimens~~Specimens~~ in any media other than ThinPrep Preservecyt~~indicated above~~.
Remarks:	Specimen source required.
Stability:	Ambient: 6 months; Refrigerated: 6 months; Frozen: Unacceptable
Methodology:	Qualitative Polymerase Chain Reaction (PCR)
Performed:	Tue-Sat
Reported:	1-5 days
Note:	

CPT Codes:	87626
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This test amplifies DNA of HPV16, HPV18 and 12 other high-risk HPV types (31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, and 68) associated with cervical cancer and its precursor lesions. Sensitivity may be affected by specimen collection methods, stage of infection, and the presence of interfering substances. Results should be interpreted in conjunction with other available laboratory and clinical data. A negative high-risk HPV result does not exclude the presence of other high-risk HPV types, the possibility of future cytologic abnormalities, underlying CIN2-3, or cancer.

HPV testing should not be used for screening or management of atypical squamous cells of undetermined significance (ASCUS) in women under age 21.

Reference Interval:

Negative

TEST CHANGE

Hepatitis Delta Virus by Quantitative PCR

2013881, HDV QNT

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube~~Separator Tube~~ (SST).
Specimen Preparation:	Separate serum from cells. Transport 2~~1~~ mL serum in a sterile container. (Min: 0.5 mL)
Transport Temperature:	Frozen.
Unacceptable Conditions:	
Remarks:	Specimen source required.
Stability:	Ambient: 24 hours; Refrigerated: 1 week; Frozen: 4 months
Methodology:	Quantitative Polymerase Chain Reaction
Performed:	Mon, Thu
Reported:	2-5 days
Note:	The limit of quantification for this test is 2.1 log IU/mL (120 IU/mL). If the test DID NOT DETECT the virus, the result will be reported as "< 2.1 log IU/mL (< 120 IU/mL)." If the test DETECTED the presence of the virus but was not able to accurately quantify the number of copies, the result will be reported as "Not Quantified."
CPT Codes:	87523
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

The quantitative range of this assay is 2.1-6.8 log IU/mL (120 - 5,800,000 IU/mL).

A negative result (less than 2.1 log IU/mL or less than 120 IU/mL) does not rule out the presence of PCR inhibitors in the patient specimen or HDV RNA concentrations below the level of detection of the test. Inhibition may also lead to underestimation of viral quantitation.

~~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:

Not Detected

TEST CHANGE

Aspergillus fumigatus Antibody IgG

3000876, ASPERF IGG

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube~~Separator Tube~~ (SST).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube.~~Standard Transport Tube.~~ (Min: 0.2 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples ~~Hemolyzed, icteric, or lipemic specimens.~~
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun
Reported:	1-8 days
Note:	
CPT Codes:	86317
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

A positivity cutoff of 40 µg/mL was established based on a comparison study to precipitin assay results. Note that elevated specific IgG concentrations to Aspergillus fumigatus are not disease specific and could be found in healthy individuals. Results must be interpreted in the context of patient's clinical, laboratory, and radiologic findings, and in concordance with current practice guidelines. ~~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~~	~~Unit of Measure~~	~~Interpretation~~
~~Aspergillus fumigatus Ab IgG~~	~~0.00-90.00 mcg/mL 90.01-99.99 mcg/mL 100.00 mcg/mL or greater~~	~~Negative - No significant level of A. fumigatus IgG antibody detected. Equivocal - Questionable~~

		~~presence of A. fumigatus IgG antibody. Positive - A. fumigatus IgG antibody detected. A positive result satisfies a single criterion in the determination of allergic bronchopulmonary aspergillosis (ABPA).~~	

Reference Interval:

Test Number	Components	Reference Interval
	Aspergillus fumigatus Ab IgG	Less than or equal to 40.0 µg~~99.99 mcg~~/mL

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

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

TEST CHANGE

Hypersensitivity Pneumonitis Extended Panel (Farmer's Lung Panel)

3001561, HYPEREXT

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer two 2.5 mL aliquots of serum to individual ARUP standard transport tubes. (Min: 1.6 mL total, 0.8 mL in two aliquots)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Plasma. Contaminated, hemolyzed, or severely lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year (avoid repeated freeze/thaw cycles)
Methodology:	Qualitative Immunodiffusion/Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	3-7 days
Note:	Testing includes antibodies directed at Aspergillus fumigatus #1, A. fumigatus #2, A. fumigatus #3, A. fumigatus #6, A. flavus, Aureobasidium pullulans, Micropolyspora faeni, T. candidus, Saccharomonospora viridis, and pigeon serum. Testing also includes the following allergens: feather mix~~, beef, pork,~~ and Phoma betae.
CPT Codes:	86003 ~~x3~~; 86005; 86331 x5; 86606 x5
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.

Reference Interval:

Test Number	Components	Reference Interval
	Allergen, Fungi/Mold, Phoma betae IgE	
		Less than 0.10 kU/L: No significant level detected 0.10-0.34 kU/L: Clinical relevance undetermined 0.35-0.70 kU/L: Low 0.71-3.50 kU/L: Moderate 3.51-17.50 kU/L: High 17.51 kU/L or Greater: Very High
	T. candidus Ab, Precipitin	None detected
	S. viridis Ab, Precipitin	None detected
	A. fumigatus #3 Ab, Precipitin	None detected
	A. fumigatus #2 Ab, Precipitin	None detected
	A. flavus Ab, Precipitin	None detected
	M. faeni Ab, Precipitin	None detected
	Pigeon Serum Ab, Precipitin	None detected
	A. pullulans Ab, Precipitin	None detected
	A. fumigatus #6 Ab, Precipitin	None detected
	A. fumigatus #1 Ab, Precipitin	None detected
	Allergen, Animal, Feather Mix IgE	Negative

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

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

Inserted Cells

TEST CHANGE

Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot, Serum

3002917, NRNL IB S

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. ~~Standard Transport Tube.~~ (Min: 0.30 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Plasma. Contaminated, heat-inactivated, grossly hemolyzed, or lipemic specimens
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Qualitative Immunoblot / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Mon, Thu, Sat
Reported:	1-4 days
Note:	Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot. If low positive, positive, or high positive, then the neuronal nuclear (ANNA) antibody and Purkinje cell (PCCA) antibody IgG are screened by IFA. If the IFA screen is positive at 1:10, then a specific titer (ANNA or PCCA) will be added. Additional charges apply.
CPT Codes:	84182 x4; if reflexed add 86255; 86256
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

This test detects IgG antineuronal antibodies to Hu, Ri, Yo and Tr (DNER) antigens.

Antineuronal antibodies serve as markers that aid in discriminating between a true paraneoplastic neurological disorder (PND) and other inflammatory disorders of the nervous system. Anti-Hu (antineuronal nuclear antibody, type I) is associated with small -cell lung cancer. Anti-Ri (antineuronal nuclear antibody, type II) is associated with neuroblastoma in children and with

fallopian tube and breast cancer in adults. Anti-Yo (anti-Purkinje cell cytoplasmic antibody) is associated with ovarian and breast cancer. Anti-Tr(DNER) is associated with Hodgkin~~'s~~ lymphoma.

The presence of one or more of these antineuronal antibodies detected by both immunoblot (IB) and immunofluorescence (IFA) supports a clinical diagnosis of PND and should lead to a focused search for the underlying neoplasm . A positive IB result but negative IFA result is of questionable clinical significance. Thus, strong clinical correlation is recommended.

Reference Interval:

Test Number	Components	Reference Interval
	Purkinje Cell~~Neuronal Nuclear~~ Ab (Yo) IgG, IB, Ser~~um~~	Negative
	Purkinje Cell~~Neuronal Nuclear~~ Ab (TR/DNER) IgG, IB, Ser	Negative
	Neuronal Nuclear Ab (Ri) IgG, IB, Serum	Negative
	Neuronal Nuclear Ab (Hu) IgG, IB, Serum	Negative

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

TEST CHANGE

Paraneoplastic Reflexive Panel

3002929, PNS PAN2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube~~Separator Tube~~ (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 3 mL serum aliquot to an ARUP standard transport tube. (Min: 1.0 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Contaminated, heat-inactivated, hemolyzed, or lipemic specimens
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / ~~/~~Qualitative Immunoblot / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Wed
Reported:	1-9 days
Note:	Purkinje c~~C~~ell (PCCA) antibody and neuronal nuclear~~Neuronal Nuclear~~ (ANNA) antibody IgG are screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be added. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be added. Additional charges apply. If CV2 Antibody IgG Screen by IFA is positive, then CV2 Antibody IgG Titer by IFA will be added. Additional charges apply.
CPT Codes:	86255 x2; 84182 x3~~x2~~; if reflexed, add ~~86256 and/or~~ 84182 x4; ~~if reflexed add~~ 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Refer to report

Reference Interval:

Test Number	Components	Reference Interval
	Neuronal Antibody (Amphiphysin)	Negative
	Ma2/Ta Antibody, IgG by Immunoblot, Ser	Negative
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected
	CV2 Ab IgG CBA-IFA Screen, Serum	Less than 1:100
	SOX1 Antibody, IgG by Immunoblot, Serum	Negative

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

TEST CHANGE

Mucopolysaccharidoses Type 4A/6 Total Chondroitin Sulfate and Dermatan Sulfate with NRE (Sensi-Pro(R)) Quantitative, Urine

3003539, MPS 4A/6 U

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Urine
Specimen Preparation:	Transfer 0.25 mL urine to polypropylene sample tube and freeze immediately. (Min 0.15 mL)
Transport Temperature:	Critical Frozen
Unacceptable Conditions:	Specimens containing preservatives or heparin
Remarks:	N/A
Stability:	Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 1 year (3 freeze thaw cycles are acceptable)
Methodology:	Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Tue
Reported:	14-21 days
Note:	
CPT Codes:	83864
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.

Interpretive Data:

Refer to report.
Total Chondroitin Sulfate and Dermatan Sulfate, Urine is a sum of the internal disaccharides D0a0, D0a4, and D0a6.
NRE = Non Reducing End

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:

By report

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

TEST CHANGE

Paraneoplastic Reflexive Panel, CSF

3004517, PNSPAN CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	Transfer 2 mL CSF to an ARUP standard transport tube. (Min: 1 mL).
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Contaminated, heat-inactivated, hemolyzed, or lipemic specimens
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Qualitative Immunoblot/Semi-Quantitative Cell-Based Indirect Fluorescent Antibody
Performed:	Wed
Reported:	1-9 days
Note:	Purkinje Cell (PCCA) antibody and neuronal nuclear~~Neuronal Nuclear~~ (ANNA) antibody IgG are screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be added. If the IFA screen is positive at 1:1 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be added. Additional charges apply. If CV2 Antibody IgG Screen by IFA is positive, then CV2 Antibody IgG Titer by IFA will be added. Additional charges apply.
CPT Codes:	86255 x2; 84182 x3~~x2~~; if reflexed, add ~~86256 and/or~~ 84182 x4; ~~if reflexed add~~ 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	

Reference Interval:

Test Number	Components	Reference Interval
	Paraneoplastic Abs (PCCA/ANNA) IgG, CSF	None Detected
	Ma2/Ta Antibody, IgG by Immunoblot, CSF	Negative
	CV2 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	SOX1 Antibody, IgG by Immunoblot, CSF	Negative
	Amphiphysin Antibody, CSF	Negative

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

TEST CHANGE

Autoimmune Encephalopathy/Dementia Panel, Serum

3006201, AIENCDEMS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum sparator tube (SST)
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:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody/Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Qualitative Immunoblot/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG is positive,

	then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If IgLON5 antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 84182 x3~~x2~~; 86255 x10; if reflexed, add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	

Reference Interval:

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

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

TEST CHANGE

Autoimmune Encephalopathy/Dementia Panel, CSF

3006202, AIENCDEMC

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	CSF
Specimen Preparation:	Transfer three 1 mL CSF aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Fluid other than CSF. Grossly hemolyzed specimens
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody/Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Qualitative Immunoblot/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA CSF antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA CSF antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA CSF antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CV2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If IgLON5

	CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 84182 x3~~x2~~; 86255 x10; if reflexed, add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	

Reference Interval:

Test Number	Components	Reference Interval
	mGluR1 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	Ma2/Ta Antibody, IgG by Immunoblot, CSF	Negative
	Glutamic Acid Decarboxylase Antibody CSF	0.0-5.0 IU/mL
	LGI1 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	NMDA Receptor Ab IgG CBA-IFA, CSF	Less than 1:1
	CASPR2 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	AMPA Receptor Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	GABA-BR Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	CV2 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	DPPX Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	IgLON5 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	SOX1 Antibody, IgG by Immunoblot, CSF	Negative
	Amphiphysin Antibody, CSF	Negative
	Paraneoplastic Abs (PCCA/ANNA) IgG, CSF	None Detected

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

TEST CHANGE

Autoimmune Epilepsy Panel, Serum

3006204, AIEPS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer three 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody/Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Qualitative Immunoblot/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG is positive,

	then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-AR antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 84182 x3~~x2~~; 86255 x10; if reflexed, add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	

Reference Interval:

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

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

TEST CHANGE

Autoimmune Epilepsy Panel, CSF

3006205, AIEPC

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF
Specimen Preparation:	Transfer three 1 mL CSF aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Fluid other than CSF. Grossly hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody/Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Qualitative Immunoblot/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA CSF antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA CSF antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA CSF antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR CSF antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-AR CSF antibody IgG by IFA is positive, then titer will be added.

	Additional charges apply. If mGluR1 CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 84182 x3~~x2~~; 86255 x10; if reflexed, add 84182 x4; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report	

Reference Interval:

Test Number	Components	Reference Interval
	mGluR1 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	Ma2/Ta Antibody, IgG by Immunoblot, CSF	Negative
	Glutamic Acid Decarboxylase Antibody CSF	0.0-5.0 IU/mL
	LGI1 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	NMDA Receptor Ab IgG CBA-IFA, CSF	Less than 1:1
	CASPR2 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	AMPA Receptor Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	GABA-BR Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	CV2 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	DPPX Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	SOX1 Antibody, IgG by Immunoblot, CSF	Negative
	Amphiphysin Antibody, CSF	Negative
	GABA-AR Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	Paraneoplastic Abs (PCCA/ANNA) IgG, CSF	None Detected

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

TEST CHANGE

Autoimmune Pediatric CNS Disorders, Serum

3006210, AIPEDS

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer three 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody/Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu and Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AQP4/NMO antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG by IFA is positive, then titer will be added. Additional charges

	apply. If MOG antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-AR antibody IgG by IFA is positive, then titer will be added. Additional charges apply If AMPA antibody IgG by IFA is positive, then titer will be added. Additional charges apply
CPT Codes:	86341; 86362; 86052; 86255 x9~~x8~~; if reflexed add 84182 x2; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	

Reference Interval:

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

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

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

TEST CHANGE

Autoimmune Pediatric CNS Disorders, CSF

3006211, AIPEDC

Specimen Requirements:	
Patient Preparation:	N/A
Collect:	CSF
Specimen Preparation:	Transfer three 1 mL CSF aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Fluid other than CSF. Grossly hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 30 days (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody/Semi-Quantitative Indirect Fluorescent Antibody (IFA)/Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA CSF antibody IgG is positive, then titer will be performed. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu and Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If LGI1 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If AQP4/NMO CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If GABA-BR CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If DPPX CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If mGluR1 CSF antibody IgG by IFA is positive, then titer will be added.

	Additional charges apply. If GABA-AR CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If AMPA CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86341; 86052; 86255 x9~~x8~~; if reflexed add 84182 x2; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Reference Interval:

Test Number	Components	Reference Interval
	mGluR1 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	Glutamic Acid Decarboxylase Antibody CSF	0.0-5.0 IU/mL
	LGI1 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	NMDA Receptor Ab IgG CBA-IFA, CSF	Less than 1:1
	NMO/AQP4 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	CASPR2 Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	GABA-BR Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	AMPA Receptor Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	DPPX Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	GABA-AR Ab IgG CBA-IFA Screen, CSF	Less than 1:1
	Paraneoplastic Abs (PCCA/ANNA) IgG, CSF	None Detected

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

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

TEST CHANGE

Celiac Disease Reflexive Cascade, Serum

3016817, CELIACRFLX

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: 1.5 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Contaminated, grossly hemolyzed, grossly icteric, or grossly lipemic.
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 1 week; Frozen: 30 days
Methodology:	Semi-Quantitative Particle-Based Multianalyte Technology (PMAT)
Performed:	Sun-Sat
Reported:	2-6 days
Note:	In individuals who produce sufficient IgA, the most sensitive and specific serologic test for celiac disease (CD) diagnosis is tissue transglutaminase (tTG) IgA. In individuals who are IgA deficient, tTG IgG and deamidated gliadin peptide (DGP) IgG antibody testing is recommended. This reflexive panel test begins by assessing the presence of immunoglobulin A (IgA) using internal control beads. This assay does not measure IgA but flags samples when ~~low or~~ deficient for IgA ~~is detected~~. In the presence of ~~low or~~ deficient IgA (flags), tTG IgG and DGP IgG antibody testing will be added. In samples with sufficient IgA (no flag), tTG IgA concentrations will be measured as an initial screen. If tTG IgA results are not elevated (>1.02-4.99 FLU),~~negative,~~ then no further testing will be performed. If tTG IgA results are a weak or moderate positive (~~greater than~~ 5-~~FLU but less than~~ 10 FLU), additional testing for endomysial antibody (EMA) IgA and deamidated gliadin peptide (DGP) antibody IgA will be added and reported. If tTG IgA results are a strong positive (>~~(greater than~~ 10 FLU), then no further testing

	will be performed. If both tTG IgA and DGP IgA are below the limit of detection (tTG less than 1.02 FLU and DGP less than 0.72 FLU), then serum total IgA will be measured quantitatively. If the measured IgA concentration is below the lower limit of the age group reference interval, then tTG IgG and DGP IgG antibody testing will be added and reported. ~~, even in the absence of an IgA control flag, due to a suspected low-IgA state in the patient.~~ Refer to the Additional Technical Information document for more details. All serologic tests used to diagnose CD should be performed while the patient is on a gluten-containing diet. Upon initiation of a gluten-free diet, antibody titers decline in treatment-responsive patients and the time frame to normalize titers varies by case. Close clinical correlation with continued testing may be indicated in patients who have a family history or increased risk for CD. If serology is negative and suspicion for CD remains strong, intestinal biopsy may still be warranted to establish a diagnosis. In patients with dermatitis herpetiformis (DH), uneven antibody patterns are possible. Concurrent immunobullous disease panel testing and CD reflexive panel testing are recommended to assess for DH.
CPT Codes:	86364; if reflexed, add ~~additional CPT codes may apply:~~ 86364~~,~~; 86231; 86258 x2; 82784
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Presence of the tissue transglutaminase (tTG) IgA antibody is associated with gluten-sensitive enteropathies such as celiac disease and dermatitis herpetiformis. Individuals with positive results should be confirmed with small intestinal biopsy to establish celiac disease diagnosis. tTG IgA antibody concentrations greater than 50 FLU exhibits higher correlation with results of duodenal biopsies consistent with celiac disease. For antibody concentrations greater than or equal to 5 FLU but less than 10 FLU, additional testing for endomysial (EMA) IgA concentrations may improve the positive predictive value for disease. A decrease in tTG IgA antibody concentration after initiation of a gluten-free diet may indicate a response to therapy.

Reference Interval:

Test Number	Components	Reference Interval
	Tissue Transglutaminase (tTG) Ab, IgA	0.00 - 4.99 FLU

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

TEST CHANGE

Huntington Disease (HD) CAG Repeat Expansion

3016908, HD PCR

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavender (EDTA), pink (K2EDTA)~~), or yellow (ACD solution A or B).~~
Specimen Preparation:	Transport 2 mL whole blood. (Min: 1 mL)
Transport Temperature:	Refrigerated. Also acceptable: Ambient.
Unacceptable Conditions:	
Remarks:	A completed HD-specific consent form, signed by the patient (or legal guardian) and physician, is required for all specimens. Testing for asymptomatic patients under the age of 18 years is not offered. Presymptomatic patients are strongly encouraged to be tested through a counseling program approved by the Huntington Disease Society of America at 800-345-4372. Call Genetics Processing with additional questions at 800-242-2787 ext. 3301.
Stability:	Room temperature: 1 week; Refrigerated: 1 month; Frozen: Unacceptable
Methodology:	Polymerase Chain Reaction (PCR) / Capillary Electrophoresis~~)/Fragment Analysis~~
Performed:	Varies
Reported:	7-10 days
Note:	
CPT Codes:	81271
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

TEST CHANGE

Alzheimer's Disease Markers, CSF

3017653, ADMRKS CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF
Specimen Preparation:	Tube type: Preferred: 2.5 ml low-bind polypropylene false bottom CSF tube (Sarstedt, 63.614.625), available in orderable collection kit, ARUP Supply # 58810. Acceptable: Sarstedt 72.703.600 (1.5 ml) or Sarstedt 72.694.600 (2 ml) low-bind screw cap polypropylene microtube. Unacceptable: Standard CSF polystyrene collection tubes are not acceptable as exposing CSF to polystyrene tubes may decrease Abeta42 concentrations. Collection instructions: 1. Perform lumbar puncture and discard the first 1 to 2 ml of CSF 2. Using the drip method, collect CSF directly into low-bind polypropylene false bottom CSF tube (ARUP Supply #58810) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. Avoid use of syringes or extension tubing. Fill tube at least 50% full. 3. Freeze or refrigerateand~~and~~ send specimen in original polypropylene collection tube (do not aliquot). Do not refreeze refrigerated specimens. Do not thaw frozen specimens.
Transport Temperature:	Frozen ~~-20 Degrees C: Critical frozen~~
Unacceptable Conditions:	Specimen types other than those listed and hemolyzed CSF. Specimens too viscous to be aspirated by instrument.
Remarks:	
Stability:	Refrigerated: 14 Days;Frozen: 8 weeks.
Methodology:	Quantitative Electrochemiluminescent Immunoassay (ECLIA)
Performed:	Mon
Reported:	1-7 days
Note:	
CPT Codes:	82234; 84393; 84394
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Interpretive information: The Alzheimer's Disease Markers, CSF panel is intended for use in adult patients aged 55 years and older being evaluated for Alzheimer's disease (AD) and other causes of cognitive impairment. The pTau181/Abeta42 and tTau/Abeta42 ratios provide better concordance with amyloid positron emission tomography (PET) imaging when compared to Abeta42, pTau181, and tTau individually.

Limitations: Failure to adhere to the sample collection instructions provided in the Laboratory Test Directory may result in falsely reduced Abeta42 concentrations and therefore false elevations in the reported ratios. The ratios reported have not been established for predicting development of dementia or other neurologic conditions or for monitoring responses to therapies. Results of this test must always be interpreted in the context other clinical diagnostic evaluations and should not be used alone to establish a diagnosis of AD or other cognitive disorder.

Methodology: Roche Diagnostics Inc. electrochemiluminescence assay was used. Results obtained with different assay methods or kits may be different and cannot be used interchangeably.

Phospho-Tau (181P) CSF/ß-Amyloid (1-42) CSF ratio	Interpretation
<= 0.023	A negative result, defined as pTau181/Abeta42 ratio value below cutoff, is consistent with a negative amyloid positron emission tomography (PET) scan result. A negative result reduces the likelihood that a patient's cognitive impairment is due to AD.
> 0.023	A positive result, defined as pTau181/Abeta42 ratio value above cutoff, is consistent with a positive amyloid PET scan result. A positive result does not establish a diagnosis of AD or other cognitive disorder.
Total Tau CSF/ß-Amyloid (1-42) CSF ratio	Interpretation

<= 0.28	A negative result, defined as tTau/Abeta42 ratio value below cutoff, is consistent with a negative amyloid positron emission tomography (PET) scan result. A negative result reduces the likelihood that a patient's cognitive impairment is due to AD.
> 0.28	A positive result, defined as tTau/Abeta42 ratio value above cutoff, is consistent with a positive amyloid PET scan result. A positive result does not establish a diagnosis of AD or other cognitive disorder.

Reference Interval:

Test Number	Components	Reference Interval
	Phospho-Tau(181)/Abeta42 Ratio, CSF	<= 0.023
	Total-Tau/Abeta42 Ratio, CSF	<= 0.28

TEST CHANGE

Encephalitis Panel With Reflex to Herpes Simplex Virus Types 1 and 2 Glycoprotein G-Specific Antibodies, IgG, Serum

3017751, ENCEPH-SER

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube.
Specimen Preparation:	Transfer 4.0mL serum to an ARUP standard transport tube. (Min: 2.0mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Refer to individual components. CSF (refer to Encephalitis Panel with Reflex to Herpes Simplex Virus Types 1 and 2 Glycoprotein G-Specific Antibodies, IgG, CSF, ARUP test code 3017752).
Remarks:	
Stability:	After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)/Semi-Quantitative Chemiluminescent Immunoassay (CLIA)
Performed:	Sun-Sat
Reported:	2-6 days
Note:	If HSV 1 and/or 2 IgG is 1.10 IV or greater, then HSV 1 G-specific IgG and HSV 2 G-specific IgG will be added. Additional charges apply.
CPT Codes:	86765 x2; 86735 x2; 86787 x2; 86789; 86788; 86694; if reflexed, add 86695; 86696
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Component	Interpretation
Measles (Rubeola) Antibody, IgG	13.4 AU/mL or less: Negative. No significant level of detectable measles (rubeola) IgG antibody. 13.5-16.4 AU/mL: Equivocal. Repeat testing in 10-14 days may be helpful. 16.5 AU/mL or greater: Positive. IgG antibody to measles (rubeola) detected, which may indicate a current or past exposure/immunization to measles (rubeola).
Measles (Rubeola) Antibody, IgM	0.79 AU or less: Negative. No significant level of IgM antibodies to measles (rubeola) virus detected. 0.80-1.20 AU: Equivocal. Repeat testing in 10-14 days may be helpful. 1.21 AU or greater: Positive. IgM antibodies to measles (rubeola) virus detected. Suggestive of current or recent infection or immunization. However, low levels of IgM antibodies may occasionally persist for more than 12 months post infection or immunization.
Mumps Virus Antibody, IgG	8.9 AU/mL or less: Negative. No significant level of detectable IgG mumps virus antibody. 9.0-10.9 AU/mL: Equivocal. Repeat testing in 10-14 days may be helpful. 11.0 AU/mL or greater: Positive. IgG antibody to mumps virus detected, which may indicate a current or past exposure/immunization to mumps virus.
Mumps Virus Antibody, IgM	0.79 IV or less: Negative. No significant level of detectable IgM

	antibody to mumps virus. 0.80-1.20 IV: Equivocal. Borderline levels of IgM antibody to mumps virus. Repeat testing in 10-14 days may be helpful. 1.21 IV or greater: Positive. Presence of IgM antibody to mumps virus detected, which may indicate a current or recent infection. However, low levels of IgM antibody may occasionally persist for more than 12 months post infection or immunization.
Varicella-Zoster Virus Antibody, IgG	~~<1.~~0.99 S/CO or less: Negative. No significant level of detectable varicella-zoster IgG antibody. ~~>=~~1.00~~0~~ S/CO or greater: Positive. IgG antibody to varicella-zoster detected, which may indicate a current or past varicella-zoster infection.
Varicella-Zoster Virus Antibody, IgM	0.90 ISR or less: Negative. No significant level of detectable varicella-zoster virus IgM antibody. 0.91-1.09 ISR: Equivocal. Repeat testing in 10-14 days may be helpful. 1.10 ISR or greater: Positive. Significant level of detectable varicella-zoster virus IgM antibody. Indicative of current or recent infection. However, low levels of IgM antibodies may occasionally persist for more than 12 months post infection or immunization.
Herpes Simplex Virus Type 1 and/or 2 Antibodies, IgG	0.89 IV or less: Not Detected. 0.90-1.09 IV: Indeterminate. Repeat testing in 10-14 days may be helpful. 1.10 IV or greater: Detected.
West Nile	1.29 IV or less:

Virus Antibody, IgG by ELISA, Serum	Negative. No significant level of West Nile virus IgG antibody detected. 1.30-1.49 IV: Equivocal. Questionable presence of West Nile virus IgG antibody detected. Repeat testing in 10-14 days may be helpful. 1.50 IV or greater: Positive. Presence of IgG antibody to West Nile virus detected, suggestive of current or past infection.
West Nile Virus Antibody, IgM by ELISA, Serum	0.89 IV or less: Negative. No significant level of West Nile virus IgM antibody detected. 0.90-1.10 IV: Equivocal. Questionable presence of West Nile virus IgM antibody detected. Repeat testing in 10-14 days may be helpful. 1.11 IV or greater: Positive. Presence of IgM antibody to West Nile virus detected, suggestive of current or recent infection.

Reference Interval:

Test Number	Components	Reference Interval
	West Nile Virus Ab, IgG, Ser	1.29 IV or less
	West Nile Virus Ab, IgM, Ser	0.89 IV or less
	Varicella-Zoster Virus Antibody, IgM	0.90 ISR or less
	Varicella-Zoster Virus Ab, IgG	<=0.99
	Mumps Virus Antibody, IgM	0.79 IV or less
	Measles, Rubeola, Antibody IgM	0.79 AU or less

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

TEST CHANGE

Encephalitis Panel With Reflex to Herpes Simplex Virus Types 1 and 2 Glycoprotein G-Specific Antibodies, IgG, CSF

3017752, ENCEPH-CSF

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF.
Specimen Preparation:	Transfer 5.0mL CSF to an ARUP standard transport tube. (Min: 2.5mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Serum or plasma. Contaminated, heat-inactivated, or hemolyzed specimens.
Remarks:	
Stability:	Ambient: 8 hours; Refrigerated: 2 weeks; Frozen: 1 month
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)/Semi-Quantitative Chemiluminescent Immunoassay (CLIA)
Performed:	Sun-Sat
Reported:	4-6 days
Note:	If HSV 1 and/or 2 IgG, CSF is 1.10 IV or greater, then HSV 1 G-specific IgG, CSF and HSV 2 G-specific IgG, CSF will be added. Additional charges apply.
CPT Codes:	86765 x2; 86735 x2; 86787 x2; 86789; 86788; 86694; if reflexed, add 86695; 86696
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	

Component	Interpretation
Measles (Rubeola) Antibody, IgG, CSF	13.4 AU/mL or less: Negative. No significant level of IgG antibody to measles (rubeola) virus detected. 13.5-16.4 AU/mL: Equivocal. Repeat testing in 10-14 days may be helpful. 16.5 AU/mL or greater: Positive. IgG antibody to measles (rubeola) detected, which may indicate a current or past measles (rubeola) infection.
Measles (Rubeola) Antibody, IgM, CSF	0.79 AU or less: Negative. No significant level of IgM antibodies to measles (rubeola) virus detected. 0.80-1.20 AU: Equivocal. Repeat testing in 10-14 days may be helpful. 1.21 AU or greater: Positive. IgM antibodies to measles (rubeola) virus detected. Suggestive of current or recent infection or immunization. However, low levels of IgM antibodies may occasionally persist for more than 12 months post infection or immunization.
Mumps Virus Antibody IgG, CSF	8.9 AU/mL or less: Negative. No significant level of detectable IgG mumps virus antibody. 9.0-10.9 AU/mL: Equivocal. Repeat testing in 10-14 days may be

	helpful. 11.0 AU/mL or greater: Positive. IgG antibody to mumps virus detected, which may indicate a current or past mumps virus infection.
Mumps Virus Antibody IgM, CSF	0.79 IV or less: Negative. No significant level of detectable IgM antibody to mumps virus. 0.80-1.20 IV: Equivocal. Borderline levels of IgM antibody to mumps virus. Repeat testing in 10-14 days may be helpful. 1.21 IV or greater: Positive. Presence of IgM antibody to mumps virus detected, which may indicate a current or recent infection. However, low levels of IgM antibody may occasionally persist for more than 12 months post infection or immunization.
Varicella-Zoster Virus Antibody, IgG, CSF	<=<1.0.99 S/CO: Negative. No significant level of IgG antibody to varicella-zoster virus detected. >=1.000 S/CO: Positive. IgG antibody to varicella-zoster virus detected, which may indicate a current or past varicella-zoster infection.
Varicella-Zoster Virus Antibody, IgM by ELISA (CSF)	0.90 ISR or less: Negative. No significant level of IgM antibody

	to varicella-zoster virus detected. 0.91-1.09 ISR: Equivocal. Repeat testing in 10-14 days may be helpful. 1.10 ISR or greater: Positive. Significant level of IgM antibody to varicella-zoster virus detected, which may indicate current or recent infection. However, low levels of IgM antibodies may occasionally persist for more than 12 months post infection.
Herpes Simplex Virus Type 1 and/or 2 Antibodies, IgG, CSF	0.89 IV or less: Negative. No significant level of detectable HSV IgG antibody. 0.90-1.09 IV: Equivocal. Questionable presence of IgG antibodies. Repeat testing in 10-14 days may be helpful. 1.10 IV or greater: Positive. IgG antibody to HSV detected which may indicate a current or past HSV infection.
West Nile Virus Antibody, IgG by ELISA, CSF	1.29 IV or less: Negative. No significant level of West Nile virus IgG antibody detected. 1.30-1.49 IV: Equivocal. Questionable presence of West Nile virus IgG antibody detected. Repeat testing in 10-14 days may be helpful. 1.50 IV or

	greater: Positive. Presence of IgG antibody to West Nile virus detected, suggestive of current or past infection.	
West Nile Virus Antibody, IgM by ELISA, CSF	0.89 IV or less: Negative. No significant level of West Nile virus IgM antibody detected. 0.90-1.10 IV: Equivocal. Questionable presence of West Nile virus IgM antibody detected. Repeat testing in 10-14 days may be helpful. 1.11 IV or greater: Positive. Presence of IgM antibody to West Nile virus detected, suggestive of current or recent infection.	

Reference Interval:

Test Number	Components	Reference Interval	
	West Nile Virus Antibody IgG CSF	1.29 IV or less	
	West Nile Virus Antibody IgM CSF	0.89 IV or less	
	HSV 1/2 Antibody Screen IgG, CSF	0.89 IV or less	
	HSV 1/2 Antibody Screen IgG, CSF		
	Measles, Rubeola, Antibody IgG CSF	16.4 AU/mL or less	
	Measles, Rubeola, Antibody IgM CSF	0.79 AU or less	
	Mumps Virus Antibody IgG CSF	10.9 AU/mL or less	
	Mumps Virus Antibody IgM CSF	0.79 IV or less	
	VZV Antibody IgM CSF	0.90 ISR or less	
	VZV Antibody IgG CSF		
		<=<1.0.99 S/CO	Negative - No significant level of IgG antibody to varicella-zoster virus detected.
		>=1.000 S/CO	Positive - IgG

			antibody to varicella-zoster virus detected, which may indicate a current or past varicella-zoster infection.	

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

NEW TEST – Available Now

Click for Pricing

5-Hydroxyindoleacetic Acid (HIAA) by LC-MS/MS, Random Urine

3018617, HIAA RAND

Specimen Requirements:	
Patient Preparation:	Patients should abstain, if possible, from medications, over-the-counter drugs, and herbal remedies for at least 72 hours prior to the test. Foods rich in serotonin (avocados, bananas, eggplant, pineapple, plums, tomatoes, walnuts) and medications that may affect metabolism of serotonin must be avoided at least 72 hours before and during collection of urine for HIAA.
Collect:	Random urine.
Specimen Preparation:	Transfer 4 mL aliquot from a well-mixed random collection to an ARUP standard transport tube. (Min: 1 mL).
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Any sample except urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 months
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun-Sat
Reported:	1-5 days
Note:	Foods and medications associated with altered urinary HIAA results: Decreased HIAA: Aspirin, chlorpromazine (Thorazine), corticotropin, dihydroxyphenylacetic acid, alcohol, gentisic acid, homogentisic acid, hydrazine derivatives, imipramine (Tofranil), isocarboxazid (Marplan), keto acids, levodopa, MAO inhibitors, methenamine, methyldopa (Aldomet), perchlorperazine, phenothiazines (Compazine), promazine, promethazine (Mepergan). Increased HIAA: Acetaminophen, acetanilide, caffeine, coumaric acid, diazepam (Valium), ephedrine, fluorouracil, glyceryl guaiacolate (guaifenesin), melphalan (Alkeran), mephenesin, methamphetamine (Desoxyn), methocarbamol (Robaxin), naproxen, nicotine,

	phenacetin, phenmetrazine, phenobarbital, phentolamine, rauwolfia (Reserpine).
CPT Codes:	83497
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

Copeptin proAVP, Plasma

3018705, COPEP

Specimen Requirements:	
Patient Preparation:	
Collect:	Lavendar (K2EDTA or K3EDTA) or pink (K2EDTA)
Specimen Preparation:	Transfer 2 mL plasma within 2 hours of collection to an ARUP standard transport tube. (Min: 1 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	
Remarks:	
Stability:	After separation from cells: Room Temperature: 7 days; Refrigerated: 7 days; Frozen: 1 month
Methodology:	Quantitative Immunofluorescence
Performed:	Sun-Sat
Reported:	1-4 days
Note:	
CPT Codes:	84588
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

Retinoblastoma by Immunohistochemistry

3018832, RB-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: Indefi nitely; Refrigerated: Indefi nitely; Frozen: Unacceptable
Methodology:	Qualitative Immunohistochemistry (IHC)
Performed:	Sun-Sat
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

Click for Pricing

Vanillylmandelic Acid (VMA), Random Urine

3018861, VMA RAND

Specimen Requirements:	
Patient Preparation:	Abstain from medications for 72 hours prior to collection.
Collect:	Random urine.
Specimen Preparation:	Transfer 4 mL aliquot from a well-mixed random collection to an ARUP standard transport tube. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimen types other than urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun, Tue, Wed, Thu, Fri, Sat
Reported:	1-5 days
Note:	Moderately elevated VMA (vanillylmandelic acid) can be caused by a variety of factors such as essential hypertension, intense anxiety, intense physical exercise, and numerous drug interactions (including some over-the-counter medications and herbal products). Medications that may interfere with catecholamines and their metabolites include amphetamines and amphetamine-like compounds, appetite suppressants, bromocriptine, buspirone, caffeine, chlorpromazine, clonidine, disulfiram, diuretics (in doses sufficient to deplete sodium), epinephrine, glucagon, guanethidine, histamine, hydrazine derivatives, imipramine, levodopa (L-dopa, Sinemet), lithium, MAO inhibitors, melatonin, methyldopa (Aldomet), morphine, nitroglycerin, nose drops, propafenone (Rythmol), radiographic agents, rauwolfia alkaloids (Reserpine), tricyclic antidepressants, and vasodilators. The effects of some drugs on catecholamine metabolite results may not be predictable.
CPT Codes:	84585

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

Homovanillic Acid (HVA), Random Urine

3018862, HVA RAND

Specimen Requirements:	
Patient Preparation:	Abstain from medications for 72 hours prior to collection.
Collect:	Random urine.
Specimen Preparation:	Transfer 4 mL aliquot from a well-mixed random collection to an ARUP standard transport tube. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimen types other than urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun, Tue, Wed, Thu, Fri, Sat
Reported:	1-5 days
Note:	Moderately elevated HVA (homovanillic acid) may be caused by a variety of factors such as essential hypertension, intense anxiety, intense physical exercise, and numerous drug interactions (including some over-the-counter medications and herbal products). Medications that may interfere with catecholamines and their metabolites include amphetamines and amphetamine-like compounds, appetite suppressants, bromocriptine, buspirone, caffeine, chlorpromazine, clonidine, disulfiram, diuretics (in doses sufficient to deplete sodium), epinephrine, glucagon, guanethidine, histamine, hydrazine derivatives, imipramine, levodopa (L-dopa, Sinemet), lithium, MAO inhibitors, melatonin, methyldopa (Aldomet), morphine, nitroglycerin, nose drops, propafenone (Rythmol), radiographic agents, rauwolfia alkaloids (Reserpine), and vasodilators. The effects of some drugs on catecholamine metabolite results may not be predictable.
CPT Codes:	83150

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

Vanillylmandelic Acid (VMA) and Homovanillic Acid (HVA), Random Urine

3018863, VH RAND

Specimen Requirements:	
Patient Preparation:	Abstain from medications for 72 hours prior to collection.
Collect:	Random urine.
Specimen Preparation:	Transfer 4 mL aliquot from a well mixed random collection to an ARUP standard transport tube. (Min: 1 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Specimen types other than urine.
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: 1 week; Frozen: 2 weeks
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Sun, Tue, Wed, Thu, Fri, Sat
Reported:	1-5 days
Note:	Moderately elevated HVA (homovanillic acid) and VMA (vanillylmandelic acid) can be caused by a variety of factors such as essential hypertension, intense anxiety, intense physical exercise, and numerous drug interactions (including some over-the-counter medications and herbal products). Medications that may interfere with catecholamines and their metabolites include amphetamines and amphetamine-like compounds, appetite suppressants, bromocriptine, buspirone, caffeine, chlorpromazine, clonidine, disulfiram, diuretics (in doses sufficient to deplete sodium), epinephrine, glucagon, guanethidine, histamine, hydrazine derivatives, imipramine, levodopa (L-dopa, Sinemet), lithium, MAO inhibitors, melatonin, methyldopa (Aldomet), morphine, nitroglycerin, nose drops, propafenone (Rythmol), radiographic agents, rauwolfia alkaloids (Reserpine), tricyclic antidepressants, and vasodilators. The effects of some drugs on catecholamine metabolite results may not be predicable.
CPT Codes:	83150; 84585

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.

TEST CHANGE

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 3 to 4~~two 1~~ mL ~~serum aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~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) / Qualitative Particle-Based Multianalyte Technology (PMAT)
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 x11~~x7~~; 84182 x3~~x7~~; 86235; 86039
New York DOH Approval Status:	This test is New York DOH approved.

Interpretive Data:

Refer to report.

Component	Interpretation
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
	OJ (isoleucyl-tRNA synthetase) Antibody	Negative
	SRP (Signal Recognition Particle) Ab	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
	Jo-1 (Histidyl-tRNA Synthetase) Ab, IgG	40 AU/mL or less

TEST CHANGE

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 3 to 4~~three 1~~ mL ~~serum aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~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) / Qualitative Particle-Based Multianalyte Technology (PMAT)
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 If HMGCR antibody, IgG is positive, additional testing to follow.
CPT Codes:	83516 x13~~x8; 86235 x6~~; 84182 x3~~x7~~; 86039; 86235 x6; if reflexed, add 83516
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	19 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
	HMGCR Antibody Screen	Negative
	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: There is a component change associated with this test. One or more components have been added or removed. Refer to the Hotline Test Mix for interface build information.

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

TEST CHANGE

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 3 to 4~~five 1~~ mL ~~serum aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1.5~~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) / Qualitative Particle-Based Multianalyte Technology (PMAT)
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 x9~~x7~~; 84182 x3~~x5~~; 86431; 86200; 86039
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

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
Scleroderma (Scl-70) (ENA) Antibody, IgG	29 AU/mL or Less: Negative 30-40 AU/mL: Equivocal 41 AU/mL or greater: Positive
Jo-1 Antibody, IgG	29 AU/mL or Less: Negative 30-40 AU/mL: Equivocal 41 AU/mL or greater: Positive
Cyclic Citrullinated Peptide (CCP) Ab, IgG/A	19 Units or less: Negative 20-39 Units: Weak positive 40-59 Units: Moderate positive 60 Units or Greater: Strong positive
RNA Polymerase III Antibody, IgG	19 Units or less: Negative 20-39 Units: Weak positive 40-80~~59~~ Units: Moderate positive 81~~60~~ Units or Greater: Strong 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
	Cyclic Citrullinated Peptide Ab, IgG/A	19 Units or less
	NXP2 (Nuclear matrix protein-2) Ab	Negative
	MDA5 (CADM-140) Ab	Negative
	Antinuclear Antibody (ANA), HEp-2, IgG	Less than 1:80
	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
	PL-12 (alanyl-tRNA synthetase) Antibody	Negative
	PL-7 (threonyl-tRNA synthetase) Antibody	Negative
	PM/Scl 100 Antibody, IgG	Negative
	RNA Polymerase III Antibody, IgG	19 Units or less
	Jo-1 (Histidyl-tRNA Synthetase) Ab, IgG	40 AU/mL or less
	SSA-52 (Ro52) (ENA) Antibody, IgG	40 AU/mL or less
	Scleroderma (Scl-70) (ENA) Antibody, IgG	40 AU/mL or less
	Rheumatoid Factor	0-14 IU/mL

TEST CHANGE

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 3 to 4~~one 1~~ mL ~~serum aliquots~~ to ARUP standard transport tube~~s~~. (Min: 1~~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) / Qualitative Particle-Based Multianalyte Technology (PMAT)
Performed:	Sun-Sat
Reported:	7-18 days
Note:	Antibodies: Mi-2, P155/140, SAE1, MDA5, NXP2, TIF1-gamma, ANA
CPT Codes:	83516 x6~~x2; 84182 x4~~; 86039
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	
Refer to report.	
Reference Interval:	

Test Number	Components	Reference Interval
	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
	P155/140 Antibody	Negative
	Mi-2 (nuclear helicase protein) Antibody	Negative

NEW TEST

Click for Pricing

PCCA/ANNA by IFA, Serum

3018891, ANNA/PCCAS

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube
Specimen Preparation:	Separate serum from cells ASAP or within 2 hours of collection. Transfer 2 mL serum to an ARUP standard transport tube. (Min: 0.75 mL)
Transport Temperature:	Refrigerated
Unacceptable Conditions:	Contaminated, heat-inactivated, hemolyzed, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Sun, Wed, Fri
Reported:	1-6 days
Note:	If the IFA screen is positive at 1:10, then a specific titer (ANNA or PCCA) 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:

Reference Interval:

Test Number	Components	Reference Interval
	Purkinje Cell/Neuronal Nuclear IgG Scrn	None Detected

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

NEW TEST

Click for Pricing

Chimerism, Recipient, Pretransplant Process and Hold

3018940, STR PRE PR

Specimen Requirements:	
Patient Preparation:	
Collect:	Whole blood or bone marrow in lavender (EDTA), pink (K2EDTA), or yellow (ACD solution A or B). OR buccal brushes from recipient.
Specimen Preparation:	Transport 2 mL whole blood (Min: 1 mL), OR 1 mL bone marrow (Min: 1 mL) refrigerated, OR 2 buccal brushes (cytology brushes) in a sterile, dry tube ambient. (Min: 2 brushes)
Transport Temperature:	
Unacceptable Conditions:	Whole blood, bone marrow, buccal swab, or saliva post transplant. Plasma, serum
Remarks:	Post transplant results will be compared to pre transplant recipient and donor genotypes, therefore, donor and recipient specimens must be obtained and genotyped before the transplant even occurs. If transplant event occurred prior to specimen collection, dry buccal brushes (not bloody) are acceptable.
Stability:	Whole Blood: Room temperature: 1 week; Refrigerated: 1 month; Frozen: Unacceptable Buccal Brush: Room temperature: 1 week
Methodology:	Quantitative Polymerase Chain Reaction (PCR)
Performed:	Sun-Sat
Reported:	Varies
Note:	Extract and hold.
CPT Codes:	N/A
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST – Available Now

Click for Pricing

HBV Prenatal Triple Panel

3018943, HBV TRI PN

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

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

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

NEW TEST

Click for Pricing

Autoimmune Movement Disorder Panel, Serum

3018964, AIMDS2

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer three 1 mL serum aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Quantitative Radioimmunoassay (RIA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If PCCA is detected, ITPR1 antibody IgG will be added and if positive, then titer will be added. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is

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

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Autoimmune Neurologic Disease Panel With Reflex, Serum

3018965, NEURO R5

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST)
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer four 1 mL serum aliquots to ARUP standard transport tubes. (Min: 2.8 mL)
Transport Temperature:	Frozen
Unacceptable Conditions:	Amniotic fluid, ocular fluid, peritoneal fluid, synovial fluid, CSF, or plasma. Contaminated, grossly hemolyzed, icteric, or lipemic specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (Three freeze/thaw cycles are acceptable)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Qualitative Immunoblot / Quantitative Radioimmunoassay (RIA) / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Tue
Reported:	3-10 days
Note:	If N-methyl-D-Aspartate Receptor Antibody is positive, then titer will be performed. Additional charges apply. If CV2 Antibody IgG Screen by IFA is positive, then titer will be performed, and Acetylcholine Receptor Binding Antibody will be added. Additional charges apply. If AQP4 antibody IgG is positive, then titer will be added. Additional charges apply. If PCCA/ANNA antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional

	charges apply. If PCCA is detected, ITPR1 antibody IgG will be added and if positive, then titer will be added. Additional charges apply. If LGI1 antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 antibody IgG is positive, then titer will be added. Additional charges apply. If AMPAR antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR antibody IgG is positive, then titer will be added. Additional charges apply. If MOG antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX antibody IgG is positive, then titer will be added. Additional charges apply. If IgLON5 antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-AR antibody IgG is positive, then titer will be added. Additional charges apply. If mGLUR1 antibody IgG is positive, then titer will be added. Additional charges apply. If KLHL11 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	83519 x2; 84182 x3; 86255 x12; 86341; 86052; 86362; 86596; if reflexed, add 86255; 84182 x4; 86041; 86256 per titer
New York DOH Approval Status:	This test is New York DOH approved.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Autoimmune Movement Disorder Panel, CSF

3018966, AIMDC 2

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF
Specimen Preparation:	Transfer three 1 mL CSF aliquots to ARUP standard transport tubes. (Min: 0.5 mL/aliquot)
Transport Temperature:	Frozen
Unacceptable Conditions:	Fluid other than CSF. Grossly hemolyzed specimens
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (avoid repeated freeze/thaw cycles)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Semi-Quantitative Indirect Fluorescent Antibody (IFA) / Qualitative Immunoblot / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Varies
Reported:	3-10 days
Note:	If NMDA CSF antibody IgG is positive, then titer will be performed. Additional charges apply. If CV2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA CSF antibody IgG is screened by IFA. If the IFA screen is indeterminate, then a Neuronal Nuclear Antibodies (Hu, Ri, Yo, and Tr/DNER) IgG by Immunoblot will be performed. If the IFA screen is positive at 1:10 or greater, then a PCCA/ANNA antibodies titer and Neuronal Nuclear Antibodies (Hu, Ri, Yo, Tr/DNER) IgG by Immunoblot will be performed. Additional charges apply. If PCCA is detected ITPR1 antibody IgG will be added and if positive, then titer will be added. Additional charges apply. If LGI1 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If DPPX CSF antibody IgG by IFA is positive, then titer will be added. Additional charges apply. If AMPA CSF antibody IgG is positive, then titer will be added. Additional

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

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST

Click for Pricing

Autoimmune Neurologic Disease Panel With Reflex, CSF

3018967, NEURORCSF3

Specimen Requirements:	
Patient Preparation:	
Collect:	CSF
Specimen Preparation:	Transfer four 1 mL CSF aliquots to ARUP standard transport tubes. (Min: 2.8 mL)
Transport Temperature:	Frozen
Unacceptable Conditions:	Fluid other than CSF. Grossly hemolyzed specimens.
Remarks:	
Stability:	After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (Three freeze/thaw cycles are acceptable.)
Methodology:	Semi-Quantitative Cell-Based Indirect Fluorescent Antibody / Qualitative Immunoblot / Quantitative Radioimmunoassay (RIA) / Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA) / Semi-Quantitative Indirect Fluorescent Antibody (IFA)
Performed:	Tue
Reported:	3-10 days
Note:	If NMDA CSF antibody IgG is positive, then titer will be added. Additional charges apply. If AMPA CSF antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-BR CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CASPR2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. PCCA/ANNA CSF antibodies are screened by IFA. If the IFA screen is indeterminate, then the Immunoblot will be added. If the IFA screen is positive at 1:1, then a specific titer (PCCA or ANNA) and Immunoblot will be added. Additional charges apply. If PCCA is detected ITPR1 antibody IgG will be added and if positive, then titer will be added. Additional charges apply. If LGI1 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If CV2 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If

	DPPX CSF antibody IgG is positive, then titer will be added. Additional charges apply. If IgLON5 CSF antibody IgG is positive, then titer will be added. Additional charges apply. If GABA-AR CSF antibody IgG is positive, then titer will be added. Additional charges apply. If mGLUR1 antibody IgG is positive, then titer will be added. Additional charges apply. If KLHL11 antibody IgG by IFA is positive, then titer will be added. Additional charges apply.
CPT Codes:	86255 x12; 83519; 86341; 84182 x3; if reflexed, add 84182 x4; 86255; 86256 per titer
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

Ammonia Level, Plasma

3019004, AMMON PLA

Specimen Requirements:	
Patient Preparation:	
Collect:	Plasma preparation tube (PPT). Also acceptable: Lavender (K2EDTA)
Specimen Preparation:	Separate from cells and freeze plasma preparation tube (PPT) tube within 15 minutes of collection. Also acceptable: Transfer 2 mL plasma to an ARUP standard transport tube. (Min: 2 mL) Freeze within 15 minutes of collection. Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 1 week
Methodology:	Enzyme Immunoassay (EIA)
Performed:	Varies
Reported:	4-6 days
Note:	
CPT Codes:	82140
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

Lithium, Serum/Plasma

3019008, LITHIUM SP

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red, lavender (K2EDTA), or pink (K2EDTA).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 2 mL serum or plasma to an acid-washed transfer vial (ARUP supply #54350) available online through eSupply using ARUP Connect (TM) or contact ARUP Client Services at (800) 522-2787. (Min: 0.4 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Refrigerated or room temperature.
Unacceptable Conditions:	Light green top tube (lithium heparin).
Remarks:	
Stability:	Ambient: 2 weeks; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Quantitative Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
Performed:	Varies
Reported:	7-11 days
Note:	
CPT Codes:	80178
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

Digoxin, Serum or Plasma

3019009, DIGOXI SP

Specimen Requirements:	
Patient Preparation:	Collect specimen no sooner than 6 hours after dose.
Collect:	Serum separator tube (SST) or gray (sodium fluoride/potassium oxalate).
Specimen Preparation:	Separate from cells ASAP or within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.4 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also acceptable: Room temperature or frozen.
Unacceptable Conditions:	
Remarks:	
Stability:	Ambient: 28 days; Refrigerated: 28 days; Frozen: 1 year
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Varies
Reported:	12-16 days
Note:	
CPT Codes:	80162
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

Theophylline, Serum or Plasma

3019010, THEOP SP

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red, lavender (K2EDTA), 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: 0.2 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Refrigerated. Also acceptable: Room temperature or frozen.
Unacceptable Conditions:	Polymer gel separation tube (SST or PST).
Remarks:	
Stability:	Ambient: 1 month; Refrigerated: 1 month; Frozen: 1 month
Methodology:	Quantitative High Performance Liquid Chromatography-Tandem Mass Spectrometry
Performed:	Varies
Reported:	5-10 days
Note:	
CPT Codes:	80198
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

Lidocaine, Serum or Plasma

3019011, LIDOC SP

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red, lavender (KE2DTA), 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: 0.4 mL) Test is not performed at ARUP; separate specimens must be submitted when multiple tests are ordered.
Transport Temperature:	Frozen. Also acceptable: Room temperature or refrigerated.
Unacceptable Conditions:	Polymer gel separation tube (SST or PST).
Remarks:	
Stability:	Ambient: 2 weeks; Refrigerated: 2 weeks; Frozen: 15 months
Methodology:	Quantitative Immunoassay
Performed:	Varies
Reported:	7-11 days
Note:	
CPT Codes:	80176
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

Phospho-Tau 217, Plasma

3019017, PTAU217

Specimen Requirements:	
Patient Preparation:	
Collect:	Plasma (EDTA)
Specimen Preparation:	Transfer 1 mL plasma to an ARUP standard transport tube (Min: 0.5 mL). Separate plasma from cells within 2 hours of collection.
Transport Temperature:	Frozen
Unacceptable Conditions:	Hemolyzed or icteric specimens
Remarks:	
Stability:	Room Temperature: Unacceptable Refrigerated: 1 week Frozen: 2 weeks
Methodology:	Qualitative Chemiluminescent Immunoassay (CLIA)
Performed:	Varies
Reported:	1-8 days
Note:	
CPT Codes:	84393
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	

Reference Interval:

Test Number	Components	Reference Interval

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

NEW TEST – Available Now

Click for Pricing

MYB by In Situ Hybridization Stain Only

3019199, SO MYB ISH

Specimen Requirements:	
Patient Preparation:	
Collect:	Tissue
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 6 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Min: 4 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:	Tissue or cells not processed and placed in a paraffin block; serum, blood or other body fluids; tissue not mounted on positively charged slides. Frozen specimens. Specimens fixed/processed in alternative fixatives (alcohol, Prefer) or heavy metal fixatives (B4 or B5). Decal specimens, fresh tissue, or cytospins.
Remarks:	
Stability:	Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable
Methodology:	Qualitative In situ Hybridization (ISH)
Performed:	Mon-Fri
Reported:	2-5 days
Note:	This test is performed as a stain and return (technical) service only.
CPT Codes:	88365
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

ABPA With Quantitative A. Fumigatus IgG

3019329, ABPA PAN

Specimen Requirements:	
Patient Preparation:	
Collect:	Plain red or serum separator tube.
Specimen Preparation:	Separate serum from cells within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.3 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Postmortem samples and NY samples (non-New York approved)
Remarks:	
Stability:	Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 year
Methodology:	Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay
Performed:	Sun-Sat
Reported:	1-8 days
Note:	
CPT Codes:	82785; 86003; 86317
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

Anti-Mutated Citrullinated Vimentin (MCV) Antibody, Serum

3019462, ANTI-MCVAB

Specimen Requirements:	
Patient Preparation:	
Collect:	Serum separator tube (SST).
Specimen Preparation:	Separate serum from cells as soon as possible or within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)
Transport Temperature:	Refrigerated.
Unacceptable Conditions:	Contaminated, heat-inactivated, grossly hemolyzed, grossly icteric, or grossly lipemic specimens.
Remarks:	
Stability:	Ambient: 48 hour; Refrigerated: 5 days; Frozen: 30 days; samples should be frozen and thawed only once. Samples that are improperly stored or are subject to multiple freeze-thaw cycles may yield spurious results.
Methodology:	Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)
Performed:	Wed
Reported:	1-8 days
Note:	Vimentin is an intermediate filament protein secreted by macrophages in inflamed joints. Mutated citrullinated vimentin (MCV) is a modified protein found in the synovial fluids of subjects with rheumatoid arthritis (RA). MCV can induce the formation of autoantibodies (anti-MCV). Anti-MCV antibodies can be of higher sensitivity in the diagnosis of RA and can be found in patients negative for anti-CCP. Anti-MCV can be a useful marker for early RA diagnosis, and positivity has been associated with disease activity and poor radiographic prognosis. This assay uses ELISA methodology for the detection of anti-MCV antibodies. MCV is bound to microwells. If antibodies to MCV are present in the tested patient sample, they will bind to the antigens on the microwells. Enzyme conjugated anti-human secondary antibodies are then added, followed by the addition of a substrate to generate a color

	reaction. The intensity of the color is proportional to the bound anti-MCV IgG antibodies and is measured using a spectrophotometer.
CPT Codes:	83520
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

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

Inactivations

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

Test Number	Test Name	Refer to Replacement Test
0020038	Lithium, Serum or Plasma(Change effective as of 04/21/25: Refer to 3019008)	Lithium, Serum/Plasma (3019008)
0020043	Ammonia, Plasma(Change effective as of 04/21/25: Refer to 3019004)	Ammonia Level, Plasma (3019004)
0055142	Allergens, Food, Profile 4 (Inactive as of 04/21/25)	
0055218	Allergens, Food, West Kentucky Group (Inactive as of 04/21/25)	
0070027	Arginine Vasopressin Hormone(Change effective as of 04/21/25: Refer to 3018705)	Copeptin proAVP, Plasma (3018705)
0090080	Digoxin(Change effective as of 04/21/25: Refer to 3019009)	Digoxin, Serum or Plasma (3019009)
0090155	Lidocaine(Change effective as of 04/21/25: Refer to 3019011)	Lidocaine, Serum or Plasma (3019011)
0090265	Theophylline(Change effective as of 04/21/25: Refer to 3019010)	Theophylline, Serum or Plasma (3019010)
2008620	Allergens, Pediatric, Early Childhood Profile IgE (Inactive as of 04/21/25)	
2008621	Allergens, Pediatric, Toddler Profile IgE (Inactive as of 04/21/25)	
2010020	Allergens, Upper Midwest Profile, IgE (Inactive as of 04/21/25)	

Test Number	Test Name	Refer to Replacement Test
2010678	Allergens, Inhalants, Central Plains Panel IgE (Inactive as of 04/21/25)	
2010679	Allergens, Inhalants, Central Illinois Profile IgE (Inactive as of 04/21/25)	
2012464	Allergens, Weed, Ragweed Panel IgE (Inactive as of 04/21/25)	
2013225	Allergens, Inhalants, Pediatric Aeroallergen IgE (Inactive as of 04/21/25)	
3006051	Autoimmune Neurologic Disease Panel with Reflex, Serum (Change effective as of 4/21/25: Refer to 3018965 in the April Hotline)	Autoimmune Neurologic Disease Panel With Reflex, Serum (3018965)
3006052	Autoimmune Neurologic Disease Panel With Reflex, CSF (Change effective as of 4/21/25: Refer to 3018967 in the April Hotline)	Autoimmune Neurologic Disease Panel With Reflex, CSF (3018967)
3006206	Autoimmune Movement Disorder Panel, Serum (Change effective as of 4/21/25: Refer to 3018964 in the April Hotline)	Autoimmune Movement Disorder Panel, Serum (3018964)
3006207	Autoimmune Movement Disorder Panel, CSF (Change effective as of 4/21/25: Refer to 3018966 in the April Hotline)	Autoimmune Movement Disorder Panel, CSF (3018966)
3017103	Mutated Citrullinated Vimentin (MCV) Antibody, Serum (Change effective as of 4/21/25: Refer to 3019462 in the April Hotline)	Anti-Mutated Citrullinated Vimentin (MCV) Antibody, Serum (3019462)