

Effective as of **10/21/2024**

**Additional ordering and billing information**

[Information when ordering laboratory tests that are billed to Medicare/Medicaid](#)

[Information regarding Current Procedural Terminology \(CPT\)](#)

Test Number	Mnemonic	Test Name	New Test	Test Name Change	Specimen Requirements	Methodology	Performed/Reported	Note	Interpretive Data	Reference Interval	Component Charting Name	Component Change	Reflex Pattern	Result Type	Ask at Order Prompt	Numeric Map	Unit of Measure	CPT Code	Pricing Change	Inactivation w/ Replacement	Inactivation w/o Replacement
0020407	LACTOL	Lactose Tolerance (Inactive as of 10/21/24)																			x
0060113	MC LEGION	Legionella Species, Culture			x	x		x													
0082024	FFN	Fetal Fibronectin (Inactive as of 10/21/24)																			x
0090001	Acetaminophen	Acetaminophen(Inactive as of 10/21/24)																			x
0090057	GABAP	Gabapentin (Change effective as of 10/21/2024: Refer to 3017893 in the October Hotline)																		x	
0090090	DIL	Phenytoin(Change effective as of 10/21/24: Refer to 0090141 in the October Hotline)																		x	
0090251	Salicylate	Salicylate Assay (Inactive as of 10/21/24)																			x
0090260	TEG	Carbamazepine, Total (Change effective as of 10/21/24: Refer to 2011763 in the October Hotline)																		x	
0090290	VPA	Valproic Acid(Change effective as of 10/21/24: Refer to 0099310 in the October Hotline)																		x	

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0095229	CYSTAT C	Cystatin C, Serum with Reflex to Estimated Glomerular Filtration Rate (eGFR) (Change effective as of 10/21/24: Refer to 3018316 in the October Hotline.)																		x	
0098834	OXCARB	Oxcarbazepine or Eslicarbazepine Metabolite (MHD) (Change effective as of 10/21/2024: Refer to 3017889 in the October Hotline)																		x	
2000133	GH REQUEST	Cytology, SurePath Liquid-Based Pap Test and Human Papillomavirus (HPV), High Risk with 16 and 18 Genotype by PCR, SurePath. (for routine co-testing in women over 30) (Change effective as of 10/21/2024: Refer to 2000136)																		x	
2000134	GA REQUEST	Cytology, SurePath Liquid-Based Pap Test (Change effective as of 10/21/2024: Refer to 2000137)																		x	

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2000135	GR REQUEST	Cytology, SurePath Liquid-Based Pap Test with Reflex to Human Papillomavirus (HPV), High Risk with 16 and 18 Genotype by PCR, SurePath (Change effective as of 10/21/2024: Refer to 2000138)																			x		
2003182	LACOSA SP	Lacosamide, Serum or Plasma (Change effective as of 10/21/2024: Refer to 3017887 in the October Hotline)																				x	
2005415	UIAT	Urticaria-Inducing Activity with Thyroid Antibodies and Stimulating Hormone			x																		
2005966	MEL BL SS	Special Stain, Melanin Bleach			x																		
2007515	TADQNT U	Tricyclic Antidepressants, Quantitative, Urine					x					x											
2012669	HIV AB DIF	Human Immunodeficiency Virus Types 1 and 2 (HIV-1/2) Antibody Differentiation, Supplemental, with Reflex to HIV-1 Quantitative NAAT, Plasma		x	x			x					x						x				

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2012674	HIV PANEL	Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA, Reflexive Panel			X			X										X			
2013333	HIVAGABGE	Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA with Reflex to HIV-1/HIV-2 Antibody Differentiation, Supplemental			X			X													
3000496	PANFUNGSE Q	PanFungal Identification by Sequencing			X																
3000867	HIV QNT	Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, Plasma			X	X		X	X												
3000870	HIV QT GR	Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT with Reflex to HIV-1 Drug Resistance by Next Generation Sequencing			X	X				X											
3000872	HIVCSF QNT	Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, CSF			X	X		X	X												

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3003760	HIV1QUAL	Human Immunodeficiency Virus 1 (HIV-1) by Qualitative NAAT (Change effective as of 10/21/24; Refer to 3017779 in the October Hotline)																		x	
3005478	GFR EST	Creatinine With eGFR		x							x										
3005694	ARRAY FSV	Cytogenomic SNP Microarray, Family-Specific Variant		x																	
3017653	ADMRKS CSF	Alzheimer's Disease Markers, CSF																	x		
3017779	HIV1,2QUAL	Human Immunodeficiency Virus 1 and 2 (HIV-1/HIV-2) by Qualitative NAAT		x																	
3017828	SO MSI IHC	Mismatch Repair Panel by Immunohistochemistry		x																	
3017887	LACOSA-S	Lacosamide, Serum		x																	
3017889	OXCARBAZ	Oxcarbazepine Metabolite, Serum		x																	
3017890	14-3-3 ETA	14-3-3 eta Protein by ELISA, Serum		x																	
3017891	RAPANEL	Early and Established Rheumatoid Arthritis (RA) Panel		x																	
3017893	GABAP-SP	Gabapentin, Serum or Plasma		x																	
3017902	SC5B-9	SC5b-9		x																	

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3018046	CD38-IHC	CD38 by Immunohistochemistry	x																		
3018056	P120 IHC	p120 by Immunohistochemistry	x																		
3018057	MYOD1 IHC	MyoD1 by Immunohistochemistry	x																		
3018058	HLA A29	HLA-A29 Genotyping, Birdshot Chorioretinopathy	x																		
3018202	VIP PLA	Vasoactive Intestinal Polypeptide (VIP), Plasma	x																		
3018316	GFR CYS	Cystatin and Creatinine With eGFR	x																		
3018558	JUG R 1	Allergen, Food, Walnut Component rJug r 1, IgE	x																		
3018559	WALNUT R	Allergen, Food, Walnut (Juglans spp.) With Reflex to Components, IgE	x																		
3018561	ANA O 3	Allergen, Food, Cashew Component rAna o 3, IgE	x																		
3018562	CASHEW R	Allergen, Food, Cashew With Reflex to Components, IgE	x																		

**TEST CHANGE**

**Legionella Species, Culture**

0060113, MC LEGION

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Respiratory specimens: Abscess material, aspirates, BAL, fluids, secretions, sputum, or tissue; OR pericardial fluid or blood in SPS Vacutainer(~~R~~) tube for microbiology (ARUP supply #24964). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at ~~(800-)~~522-2787.

**Specimen Preparation:** Fluid: Transfer to a sterile container. Place each specimen in an individually sealed bag. (Min. 0.5 mL) Tissue: Place on gauze moistened with sterile nonbacteriostatic saline to prevent drying and transport in sterile container. Blood: Transport blood in SPS tube.

**Transport Temperature:** Refrigerated. ~~For nonblood specimens:~~ If delay in transport (greater than 48 hours), freeze at -60C or lower and transport on dry ice~~frozen.~~

**Unacceptable Conditions:** Stool, urine, wounds, or other nonrespiratory sites. Dry specimens. Specimens in preservatives or viral transport medium (M4, UTM).

**Remarks:** Specimen source preferred.

**Stability:** Ambient: 2 hours; Refrigerated: 48 hours; Frozen: 1 week  
Whole Blood: Ambient: 2 hours; Refrigerated: 48 hours; Frozen: Unacceptable

**Methodology:** Qualitative Culture/Identification

**Performed:** Sun-Sat

**Reported:** 1-8 days

**Note:** Amplified DNA testing (PCR) is also available for respiratory specimens. Refer to Legionella Species by Qualitative PCR (ARUP test code 2010125). Legionella pneumophila DFA (ARUP test code 2004598) is also available.

**CPT Codes:** 87081; Identification CPT codes may vary based on method

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

Interpretive Data:

Reference Interval:

Culture negative for *Legionella* species.

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**TEST CHANGE**

Urticaria-Inducing Activity with Thyroid Antibodies and Stimulating Hormone

2005415, UIAT

Specimen Requirements:

**Patient Preparation:** Patients taking calcineurin inhibitors should stop their medication 72 hours prior to draw. Patients on prednisone should be off their medication for 2 weeks prior to draw.

**Collect:** Plain red.

**Specimen Preparation:** Separate serum from cells ASAP or within 2 hours of collection. Transfer 1 mL serum ~~each~~ to ~~two~~ an ARUP ~~standard transport tubes~~ ~~Standard Transport tube~~ and freeze immediately (Min: 0.5 mL ~~each~~) ~~AND transfer 1 mL serum to an ARUP Standard Transport Tube. (Min: 0.5 mL)~~

**Transport Temperature:** ~~First Specimen:~~ CRITICAL FROZEN. Separate specimens must be submitted for this multiple test panel. ~~Second Specimen: Refrigerated.~~

**Unacceptable Conditions:** Specimens other than serum. Contaminated, grossly hemolyzed, or lipemic specimens.

Remarks:

**Stability:** ~~First Specimen:~~ After separation from cells: Ambient: 30 minutes; Refrigerated: Unacceptable; Frozen: 1 year (avoid repeated freeze/thaw cycles) ~~Second Specimen: After separation from cells: Ambient: 8 hours; Refrigerated: 1 Week; Frozen: 6 months~~

**Methodology:** Semi-Quantitative Ex Vivo Challenge/Cell Culture/Quantitative Enzyme-Linked Immunosorbent Assay (~~ELISA~~)/~~Quantitative Chemiluminescent Immunoassay (CLIA)~~

**Performed:** Mon, Fri

**Reported:** 11-14 days

**Note:** 1) Chronic urticaria (CU) is a common and complex dermatological condition that is suspected when patients experience persistent hives for over 6 weeks. No published evidence of an exogenous allergen as the cause of this disorder exists. About 45 percent of cases have autoantibodies directed against either basophil or mast cell-associated IgE or the high affinity IgE-Fc receptor (Fc epsilon R1 alpha) (Clin Exp Allergy

2009; 39: 777-87). 2) The presence of histamine-releasing factors (including but not limited to IgE and Fc epsilon R1 alpha-specific autoantibodies) in the patient serum can be indirectly determined by evaluating basophil/mast cell activation status using histamine-release assays, autologous serum-skin test, and flow cytometric measurement of the basophil and mast cell-specific marker CD203c. Serum from CU patients can activate donor basophils, which induces histamine release and CD203c upregulation (J Allergy Clin Immunol 2006; 117: 1430-4).

CPT Codes: 86352; 86800; 84443; 86376

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

Interpretive Data:

~~Refer to report. Refer to report.~~

~~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

**TEST CHANGE**

**Special Stain, Melanin Bleach**

2005966, MEL BL SS

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Tissue or cells.

**Specimen Preparation:** Formalin fix (10 percent neutral buffered formalin is preferred) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 2 unstained (3- to 5-micron thick sections), positively charged slides in a tissue transport kit (ARUP supply #47808). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at ~~(800-)522-2787~~. (Min: ~~2 slides~~1 slide).

**Transport Temperature:** Room temperature or refrigerated. Ship in cooled container during summer months.

**Unacceptable Conditions:** Specimens submitted with ~~nonrepresentative~~~~non-~~~~representative~~ tissue type. Depleted specimens.

**Remarks:** HISTOLOGY SPECIAL STAINS SUBMISSION DETAILS: Submit electronic request. If you do not have electronic ordering capability, use an ARUP Anatomic Pathology Form (#32960) with an ARUP client number. For additional technical details, contact ARUP Client Services at ~~(800-)522-2787~~.

**Stability:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable

**Methodology:** Special Stain

**Performed:** Mon-Fri

**Reported:** 1-5 days

**Note:** All stains will be handled as Stain and Return unless a consultation is requested. To request a consultation, submit the pathology report, all associated case materials (clinical history, blocks, slides, etc.), and the Anatomic Pathology Requisition Form (#32960).

**CPT Codes:** 88313

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

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
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**TEST CHANGE**

**Tricyclic Antidepressants, Quantitative, Urine**

2007515, TADQNT U

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Random urine.

**Specimen Preparation:** Transfer 2 mL urine to ARUP standard transport tube. (Min: 0.7 mL)

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:**

**Remarks:**

**Stability:** Ambient: 1 week; Refrigerated: 11 days; Frozen: 2 weeks

**Methodology:** Quantitative Liquid Chromatography-Tandem Mass Spectrometry

**Performed:** Sun  
Tue, Thu, Sat

**Reported:** 1-7 days

**Note:** This test is used to quantitate the following tricyclic antidepressants: amitriptyline, clomipramine, desipramine, doxepin, imipramine, norclomipramine, nordoxepin, nortriptyline, and protriptyline.

**CPT Codes:** 80337 (Alt code: G0480)

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

**Interpretive Data:**

Urine concentrations of tricyclic antidepressants do not correlate with signs or symptoms of therapy or toxicity.

Therapeutic ranges are not established.

100 ng/mL limit of quantification: Amitriptyline, nortriptyline, imipramine, desipramine, doxepin, nordoxepin, protriptyline

200 ng/mL limit of quantification: Clomipramine, norclomipramine

**Reference Interval:**

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

**TEST CHANGE**

**Human Immunodeficiency Virus Types 1 and 2 (HIV-1/2) Antibody Differentiation, Supplemental, with Reflex to HIV-1 Quantitative NAAT, Plasma**

2012669, HIV AB DIF

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** ~~Serum separator tube (SST), lavender~~ **Lavender** (EDTA), or pink (K2EDTA).

**Specimen Preparation:** Separate from cells within 24 hours of collection. Transfer 3 mL ~~serum or~~ plasma into an ARUP standard transport tube dedicated only for **the HIV AB DIF assay testing**. (Min: 1.5 mL) Remove particulate material.

**Transport Temperature:** Frozen.

**Unacceptable Conditions:** ~~Serum~~-Heparinized or citrated plasma specimens. ~~Specimens submitted in plasma preparation tube~~. Specimens containing particulate material. Severely hemolyzed or heat-inactivated specimens.

**Remarks:**

**Stability:** After separation from cells: Ambient: 24 hours (CRITICAL: SHIP FROZEN); Refrigerated: ~~5 days~~ **72 hours**; Frozen: ~~6 weeks~~ **3 months** (avoid repeated freeze/thaw cycles)

**Methodology:** ~~Qualitative Polymerase Chain Reaction (PCR)/Qualitative Immunoassay/Quantitative Transcription-Mediated Amplification (TMA)~~

**Performed:** Varies

**Reported:** 1-2 days

**Note:** For use only when patient has a repeatedly reactive third- or fourth-generation HIV screen test result. This test discriminates between HIV-1 and HIV-2 antibodies. Results for each type are reported. This test is for use as the antibody differentiation test in the specific multitest algorithm. It is not to be ordered as a rapid screen test and cannot be used as a supplemental test if the initial screen test was a rapid test. If the HIV-1/ 2 antibody differentiation immunoassay is Negative or Indeterminate, then the Human Immunodeficiency Virus 1 **and 2** (HIV-1 **/HIV-2**) by **Qualitative NAAT, Plasma**, will be added. Additional charges apply. Refer to Human

Immunodeficiency Virus 1 **and 2** (HIV-1/HIV-2) by Quantitative NAAT, Plasma (ARUP test code **30177793000867**) for additional information regarding Performed or Reported times, Interpretive Data, and Notes for the reflex test. The multitest algorithm is recommended by the Centers for Disease Control and Prevention (CDC) and the Clinical Laboratory Standards Institute (CLSI) for the diagnosis of HIV (refer to <http://arupconsult.com/content/human-immunodeficiency-virus>).

CPT Codes: 86701; 86702; if reflexed, add 87535

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

**Interpretive Data:**

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

**Reference Interval:**

Effective November 12, 2018

Test Number	Components	Reference Interval
	HIV-1 Antibody	Negative
	HIV-2 Antibody	Negative
3000867	Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, Plasma	Not detected

**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**

**Human Immunodeficiency Virus (HIV) Combo Antigen/Antibody (HIV-1/O/2) by CIA, Reflexive Panel**

2012674, HIV PANEL

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** ~~Serum separator tube (SST), lavender~~ **Lavender** (EDTA) or pink (K2EDTA).

**Specimen Preparation:** Separate from cells within 24 hours of collection. Transfer 3 mL ~~serum or~~ plasma into an ARUP standard transport tube. (Min: ~~2.3~~ mL) Remove particulate material. This test requires a dedicated transport tube submitted only for **the HIV PANEL assay** testing.

**Transport Temperature:** Frozen.

**Unacceptable Conditions:** ~~Serum~~-Heparinized or citrated plasma specimens. **Plasma preparation tube**. Specimens containing particulate material. Severely hemolyzed or heat-inactivated specimens.

**Remarks:**

**Stability:** After separation from cells: Ambient: 24 hours (CRITICAL: SHIP FROZEN); Refrigerated: ~~5 days~~ **72 hours**; Frozen: ~~6 weeks~~ **3 months** (avoid repeated freeze/thaw cycles)

**Methodology:** Qualitative Chemiluminescent Immunoassay (CLIA)/Qualitative Immunoassay/**Qualitative Polymerase Chain Reaction (PCR)**~~Quantitative Transcription-Mediated Amplification (TMA)~~

**Performed:** Sun-Sat

**Reported:** 1-2 days

**Note:** The fourth-generation screen test is for the simultaneous qualitative detection of human immunodeficiency virus type 1 (HIV-1) p24 antigen and antibodies to HIV type 1 (HIV-1 groups M and O) and HIV type 2 (HIV-2). Results of the screen cannot be used to distinguish between the presence of HIV-1 p24 antigen, HIV-1 antibody (Ab), or HIV-2 Ab. If the HIV-1,2 combo antigen/Ab screen is repeatedly reactive, then the HIV-1/2 Ab differentiation immunoassay will be performed. Additional charges apply. The HIV-1/2 Ab differentiation immunoassay confirms and discriminates between HIV-1 and HIV-2 Abs. Results for each type are reported. If the HIV-1/2

Ab differentiation immunoassay is Negative or Indeterminate, then the Human Immunodeficiency Virus 1 and 2 (HIV-1/HIV-2) by Qualitative NAAT,Plasma will be added. Additional charges apply. This multitest algorithm is recommended by the Centers for Disease Control and Prevention (CDC) and was adopted by the Clinical Laboratory Standards Institute (CLSI) for the diagnosis of HIV (refer to <http://arupconsult.com/content/human-immunodeficiency-virus>). Refer to the following tests for additional information regarding Performed or Reported times, Interpretive Data, and Notes for the reflex tests of this panel: Human Immunodeficiency Virus Types 1 and 2 (HIV-1/2) Antibody Differentiation, Supplemental with Reflex to HIV-1/HIV-2 Qualitative-Quantitative NAAT,Plasma (ARUP test code 2012669); Human Immunodeficiency Virus 1 and 2 (HIV-1/HIV-2) by Qualitative NAAT,Plasma (ARUP test code 3017779~~3000867~~).

CPT Codes: 87389; if reflexed, add 86701 and 86702; if reflexed, add 87535~~6~~

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

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

Reference Interval:

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

Effective November 12, 2018

## TEST CHANGE

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

2013333, HIVAGABGE

### Specimen Requirements:

Patient Preparation: N/A

Collect: Serum separator tube (SST). Also acceptable: Lavender (EDTA) or pink (K2EDTA).

Specimen Preparation: Separate from cells ASAP or within 2 hours of collection. Transfer 1.5 mL serum **or plasma** into an ARUP standard transport tube. (Min: 0.75 mL) Remove particulate material.

Transport Temperature: ~~Frozen~~ Refrigerated.

Unacceptable Conditions: Specimens containing particulate material. Severely hemolyzed or heat-inactivated specimens.

### Remarks:

Stability: After separation from cells: Ambient: 24 hours; Refrigerated: 7 days; Frozen: 8 months (avoid repeated freeze/thaw cycles)

Methodology: Qualitative Chemiluminescent Immunoassay (CLIA)/Qualitative Immunoassay

Performed: Sun-Sat

Reported: 1-2 days

Note: The fourth-generation screen test is for the simultaneous qualitative detection of human immunodeficiency virus type 1 (HIV-1) p24 antigen and antibodies to HIV type 1 (HIV-1 groups M and O) and HIV type 2 (HIV-2). Results of the screen cannot be used to distinguish between the presence of HIV-1 p24 antigen, HIV-1 antibody, or HIV-2 antibody. The reflexed HIV-1/ HIV-2 antibody differentiation test discriminates between HIV-1 and HIV-2 antibodies. Results for each type are reported. If the HIV-1,2 combo antigen/antibody screen is repeatedly reactive, then the HIV-1/ HIV-2 antibody differentiation test will be performed. Additional charges apply. A recommendation to order further testing on a separate specimen for HIV-1/HIV-2 nucleic acid will be made for certain results. This multitest algorithm is recommended by the Centers for Disease Control and Prevention (CDC) and was adopted by the Clinical

Laboratory Standards Institute (CLSI) for the diagnosis of HIV.

CPT Codes: 87389; if reflexed, add 86701; 86702

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

Interpretive Data:

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

Reference Interval:

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

**TEST CHANGE**

**PanFungal Identification by Sequencing**

3000496, PANFUNGSEQ

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Fresh tissue; formalin-fixed paraffin-embedded tissue (FFPE); CSF; pleural, abdominal, synovial, peritoneal, and vitreous fluid.  
~~Tissue, CSF, body fluid~~

**Specimen Preparation:** Formalin-fixed paraffin-embedded tissue block (FFPE) \*Scrolls minimum; three (10 microns). Transfer ~~fresh tissue,~~ CSF, ~~tissue, and~~ or body fluid specimen into a sterile container and freeze immediately. \*Fresh tissue minimum (Min: 25 mg, \*of fresh tissue or 0.5mL of CSF/Sterile body fluid minimum 0.5 mL.) ~~Also acceptable: Formalin-fixed paraffin-embedded (FFPE) tissue. (Min: three 10 micron scrolls).~~

**Transport Temperature:** Fresh Tissue: Frozen. FFPE: Room temperature. CSF: Frozen. Body Fluid: Frozen

**Unacceptable Conditions:** Fingernails, toenails~~Finger nails, toe nails~~, or bone. Formalin-fixed paraffin-embedded tissue on slides.  
All respiratory specimens such as bronchoalveolar lavage (BAL), sputum, etc.

**Remarks:**

**Stability:** Fresh Tissue: Ambient: 5 days; Refrigerated: 5 days; Frozen: 5 days FFPE: Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable CSF and Body Fluid: Ambient: 14 days; Refrigerated: 14 days; Frozen: 14 days

**Methodology:** Polymerase Chain Reaction (PCR)/Sequencing

**Performed:** Sun, Mon, Wed

**Reported:** 3-5 days

**Note:**

**CPT Codes:** 87999

**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:**

This assay detects and identifies human fungal pathogens by Sanger sequencing. This assay cannot differentiate invasive fungal infection from environmental fungal DNA. Clinical correlation of sequencing result is recommended.

Reference Interval:

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**TEST CHANGE**

Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, Plasma

3000867, HIV QNT

Specimen Requirements:

Patient Preparation:

Collect: Lavender (EDTA), pink (K2EDTA), ~~yellow (ACD)~~, or plasma preparation tube (PPT).

Specimen Preparation: Separate from cells within 24 hours of collection. Transfer 2 mL plasma to an ARUP standard transport tube ([ARUP supply #15824](#)). [Available online through eSupply using ARUP Connect\(TM\) or contact ARUP Client Services at 800-522-2787. \(Minimum volume: 1.3mL\) and freeze. \(Min: 0.8 mL\)](#)

Transport Temperature: Frozen.

Unacceptable Conditions: Serum. CSF (refer to Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, CSF, ARUP test code ~~30178153000872~~). Heparinized specimens.

Remarks:

Stability: After separation from cells: Ambient: 24 hours (Critical: Ship FROZEN); Refrigerated: ~~6 days~~~~72 hours~~; Frozen: 3 months

Methodology: Quantitative ~~Polymerase Chain Reaction (PCR)~~~~Transcription-Mediated Amplification (TMA)~~

Performed: Sun-Sat

Reported: 1-4 days

Note: The limit of quantification for this assay is 1.3 log copies/mL (20 copies/mL). If the assay DETECTED the presence of the virus but was not able to accurately quantify, the test will be reported as "Not Quantified, Detected."

CPT Codes: 87536

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

Interpretive Data:

~~Normal range for this assay is "Not Detected."~~

The quantitative range of this assay is 1.30~~47~~-7.00 log copies/mL (~~2030~~-10,000,000 copies/mL).

### A result

~~An interpretation~~ of "Not Detected" does not rule out the presence of inhibitors or HIV-1 RNA concentration below the level of detection of the ~~test~~assay. Care should be taken in the interpretation of any single viral load determination.

~~This test is intended for use in conjunction with The clinical presentation and other laboratory markers for the clinical management~~significance of HIV-1 infected patients. The test can be used to assess patient prognosis by measuring the baseline HIV-1 level or to monitor the effects of antiretroviral therapy by measuring changes in HIV-1 RNA levels during the course of antiretroviral treatment. ~~concentration has not been fully established; however, a change of 0.5 log copies/mL may be significant.~~

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

~~Note: The limit of quantification for this RNA assay is 1.47 log copies/mL (30 copies/mL). If the assay DETECTED the presence of the virus but was not able to accurately quantify the viral load, the test result will be reported as "< 30 Detected."~~

~~Specimens received with less than minimum volume for testing will automatically be run with a dilution according to the guidelines below:~~

~~Specimens with 240-700 uL will be diluted resulting in a modification of the quantitative range of the assay to 1.95-7.48 log copies/mL (90-30,000,000 copies/mL).~~

~~This test is intended for use in conjunction with clinical presentation and other laboratory markers as an indicator of disease prognosis. This test is also used as an aid in assessing viral response to antiretroviral treatment as measured by changes in HIV-1 RNA concentration.~~

Reference Interval:

Not detected.



**TEST CHANGE**

**Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT with Reflex to HIV-1 Drug Resistance by Next Generation Sequencing**

3000870, HIV QT GR

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Lavender (EDTA), pink (K2EDTA), or plasma preparation tube (PPT).

**Specimen Preparation:** Separate from cells within 24 hours of collection. Transfer 4 mL plasma to an ARUP standard transport tube ([ARUP supply #15824](#)). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Minimum volume: 2.5 mL) and freeze. (Min: 2.5 mL)

**Transport Temperature:** Frozen

**Unacceptable Conditions:** Serum. Heparinized specimens.

**Remarks:**

**Stability:** After separation from cells: Ambient: 24 hours (Critical: Ship FROZEN); Refrigerated: 72 hours; Frozen: 3 months

**Methodology:** Quantitative [Polymerase Chain Reaction \(PCR\)](#)/[Sequencing](#)[Transcription-Mediated Amplification \(TMA\)](#)

**Performed:** Sun-Sat

**Reported:** 2-14 days

**Note:** If Human Immunodeficiency Virus 1 by Quantitative NAAT result is greater than or equal to 2.70 log copies/mL, then HIV-Drug Resistance by Next Generation Sequencing will be added. Additional charges apply.

**CPT Codes:** 87536; if reflexed add 87900; 87901; 87906

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

**Interpretive Data:**

Refer to report

**Reference Interval:**

Test Number	Components	Reference Interval
	HIV-1 Qnt by NAAT Interp	Not Detected

Not Detected

**TEST CHANGE**

Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, CSF

3000872, HIVCSF QNT

Specimen Requirements:

Patient Preparation:

Collect: Cerebral spinal fluid.

Specimen Preparation: Transfer 2 mL CSF to an ARUP [standard transport tube \(ARUP supply #15824\)](#). Available online through eSupply using ARUP [Connect\(TM\)](#) or contact ARUP Client Services at 800-522-2787. [\(Minimum volume Standard Transport Tube and freeze. \(Min: 0.78 mL\)](#)

Transport Temperature: Frozen

Unacceptable Conditions: Plasma (refer to Human Immunodeficiency Virus 1 (HIV-1) by Quantitative NAAT, Plasma, ARUP test code 3000867).

Remarks:

Stability: Ambient: [24 hours \(Critical: Ship FROZEN\); Unacceptable;](#)  
Refrigerated: 5 days; Frozen: [30 days1 month](#)

Methodology: Quantitative [Polymerase Chain Reaction \(PCR\)Transcription-Mediated Amplification](#)

Performed: Sun-Sat

Reported: 1-4 days

Note: The limit of quantification for this RNA assay is 1.747 log copies/mL (~~5030~~ copies/mL). If the assay DETECTED the presence of the virus but was not able to accurately quantify ~~the viral load~~, the test result will be reported as "~~<30~~ Detected, [Not Quantified.](#)" ~~"~~ This test is intended for use in conjunction with clinical presentation and other laboratory markers as an indicator of disease prognosis. This test is also used as an aid in assessing viral response to antiretroviral treatment as measured by changes in HIV-1 RNA concentration.

CPT Codes: 87536

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

Interpretive Data:

~~Normal range for this assay is "Not Detected".~~

The quantitative range of this ~~test~~ assay is 1.7047-7.00 log copies/mL (~~5030~~-10,000,000 copies/mL).

An interpretation of "Not Detected" does not rule out the presence of inhibitors or HIV-1 RNA concentration below the level of detection of the ~~test~~ assay. Care should be taken in the interpretation of any single viral load determination.

The clinical significance of changes in HIV-1 RNA concentration has not been fully established; however, a change of 0.5 log copies/mL may be significant.

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

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

Reference Interval:

Not detected

**TEST CHANGE**

Creatinine With eGFR ~~Glomerular Filtration Rate (Estimated)~~

3005478, GFR EST

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Plasma separator tube or serum separator tube.

**Specimen Preparation:** Allow specimen to clot completely at room temperature. Separate serum or plasma from cells ASAP or within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. ~~Standard Transport Tube~~. (Min: 0.2 mL)

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Specimens obtained through catheters used to infuse hyperalimentation fluid. Specimens collected with potassium oxalate/sodium fluoride or sodium citrate.

**Remarks:** Patient age and sex are required for calculation.

**Stability:** After separation from cells: Ambient: 1 week; Refrigerated: 1 week; Frozen: 3 months

**Methodology:** Quantitative Enzymatic Assay

**Performed:** Sun-Sat

**Reported:** Within 24 hours

**Note:**

**CPT Codes:** 82565

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

**Interpretive Data:**

The estimated glomerular filtration rate (eGFR) was calculated using the 2021 CKD-EPI eGFR creatinine equation, which does not include race as a factor. This equation is validated in individuals 18 years of age and older. Accurate estimation of GFR requires stable day-to-day creatinine. Creatinine-based eGFR is less accurate in patients with extremes of muscle mass, restriction of dietary protein, ingestion of creatine, extra-renal metabolism of creatinine, or treatment with medications that affect renal tubular creatinine secretion. The eGFR is normalized to a body surface area of 1.73 square meters.

**GFR Categories in Chronic Kidney Disease (CKD)**

GFR Category	GFR (mL/min/1.73 square meters)	Interpretation
G1	90 or greater	Normal to high*
G2	60-89	Mild decrease*
G3a	45-59	Mild to moderate decrease
G3b	30-44	Moderate to severe decrease
G4	15-29	Severe decrease
G5	14 or less	Kidney failure
		*In the absence of evidence of kidney damage, neither GFR category G1 nor G2 fulfill the criteria for CKD (Kidney Int Suppl 2013;3:1-150)

Reference Interval:

Refer to Report

Calculated GFR - >= 60 mL/min / 1.73 square meters

**NEW TEST**

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**Cytogenomic SNP Microarray, Family-Specific Variant**

3005694, ARRAY FSV

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Green (sodium heparin). Peripheral blood required. Also acceptable: Lavender (K2EDTA). OR one buccal swab using the OraCollect collection kit ensuring the sponge tip does not come in contact with any surface prior to collection. Donor should not eat, drink, smoke, or chew gum for 30 minutes before collecting oral sample. OR cultured fibroblasts. If direct sample from skin biopsy is sent to ARUP, additional culture charges will apply. If sending skin, please order Cytogenetic Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301. If the client is unable to culture, order test Cytogenetics Grow and Send (ARUP test code 0040182) in addition to this test and ARUP will culture upon receipt (culturing fees will apply). If you have any questions, contact ARUP's Genetics Processing at 800-522-2787 ext. 3301.

**Specimen Preparation:** Whole Blood: Transport 5 mL in original collection tube. (Min: 2 mL) Buccal Swab: Transport buccal swab in ORACollect Collection kit (ARUP supply #49295). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. Cultured fibroblasts: Two T-25 flasks at 80 percent confluency. Fill flasks with culture media. Backup cultures must be maintained at the client's institution until testing is complete.

**Transport Temperature:** Whole Blood: Room temperature Buccal: Ambient Cultured fibroblasts: Ambient: 48 hours; Refrigerated: 48 hours

**Unacceptable Conditions:** Frozen specimens. Clotted specimens.

**Remarks:** Documentation of the familial copy number variant (CNV) is required to perform targeted array analysis. Submit a copy of a relative's laboratory test report documenting the CNV for which testing is requested or include the ARUP accession number of the proband.

**Stability:** Whole Blood: Ambient 48 hours; Refrigerated: 72 hours; Frozen: Unacceptable Buccal: Ambient 7 days; Refrigerated:

Unacceptable; Frozen: Unacceptable Cultured fibroblasts:  
Ambient 48 hours; Refrigerated 48 hours; Frozen: Unacceptable

Methodology:	Genomic Microarray (Oligo-SNP Array)
Performed:	Sun-Sat
Reported:	10-14 days
Note:	Order this test to identify a known deletion or duplication, identified by microarray, in a family member.
CPT Codes:	81229
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.
Interpretive Data:	
Refer to report.	
Reference Interval:	

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



**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 and send specimen in original polypropylene collection tube (do not aliquot).

**Transport Temperature:** -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:** Frozen: 8 weeks

**Methodology:** Quantitative Electrochemiluminescent Immunoassay (ECLIA)

**Performed:** Mon

**Reported:** 1-7 days

**Note:**

**CPT Codes:** 83520 x3

**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/ $\beta$ -Amyloid (1-42) CSF ratio	Interpretation
$\leq 0.023$	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/ $\beta$ -Amyloid (1-42) CSF ratio	Interpretation
$\leq 0.28$	A negative result,

<p>&gt; 0.28</p>	<p>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.</p> <p>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.</p>	
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Reference Interval:

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

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

**NEW TEST**

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**Human Immunodeficiency Virus 1 and 2 (HIV-1/HIV-2) by Qualitative NAAT**

3017779, HIV1,2QUAL

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Lavender (EDTA), pink (K2EDTA), plasma preparation tube (PPT), or serum separator tube (SST).

**Specimen Preparation:** Separate from cells within 24 hours of collection. Transfer 2 mL plasma to an ARUP standard transport tube (ARUP supply #15824). Available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787. (Minimum volume: 1.3mL)

**Transport Temperature:** Frozen

**Unacceptable Conditions:** Heparinized specimens.

**Remarks:**

**Stability:** After separation from cells: Ambient: 24 hrs; Refrigerated: 5 days; Frozen: 6 weeks.

**Methodology:** Qualitative Polymerase Chain Reaction (PCR)

**Performed:** Sun-Sat

**Reported:** 1-4 days

**Note:** Test detects and differentiates HIV-1 and HIV-2 virus RNA. Proviral DNA will not be detected.

**CPT Codes:** 87535

**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.**



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

Effective Date: **October 21, 2024**

**NEW TEST – Available Now**

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**Mismatch Repair Panel by Immunohistochemistry**

3017828, SO MSI IHC

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Tumor tissue.

**Specimen Preparation:** Formalin fix (10 percent neutral buffered formalin is preferred) and paraffin embed specimen. If sending precut slides, do not oven bake. Transport tissue block or 10 unstained (3-5 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: 5 slides). Protect paraffin block and/or slides from excessive heat.

**Transport Temperature:** Room temperature or refrigerated. Ship in cooled container during summer months.

**Unacceptable Conditions:** Frozen specimens. Specimens fixed or processed in alternative fixatives (alcohol, Prefer) or heavy metal fixatives (B-4 or B-5). Depleted or no tumor in tissue. Specimens submitted with nonrepresentative tissue type. Decalcified specimens.

**Remarks:** Only tissue that is clearly carcinoma (established by histological criteria) should be tested. Include surgical pathology report. Submit electronic request. If you do not have electronic ordering capability, use an ARUP requisition form complete with an ARUP client number. For additional technical details, please contact ARUP Client Services at 800-522-2787. If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will be held until clarification is provided.

**Stability:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable

Methodology:	Qualitative Immunohistochemistry	
Performed:	Mon-Fri	
Reported:	1-3 days	
Note:	This orderable is offered as a panel only. Individual MLH1, MSH2, MSH6, and PMS2 IHC stains are not offered at this time. This orderable is performed as a stain and return (technical) service only. Please refer to ARUP test code 0049302 if ARUP pathologist interpretation is needed.	
CPT Codes:	88342/88341x3	
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**

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Lacosamide, Serum  
3017887, LACOSA-S

**Specimen Requirements:**

**Patient Preparation:** Timing of specimen collection: Predose (trough) draw at steady-state concentration.

**Collect:** Plain red.

**Specimen Preparation:** Separate serum from cells within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)

**Transport Temperature:** Refrigerated: Also acceptable: Room temperature or frozen.

**Unacceptable Conditions:** Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).

**Remarks:**

**Stability:** Ambient: 48 hours; Refrigerated: 1 week; Frozen: 1 month 3 freeze/thaw cycles

**Methodology:** Quantitative Enzyme Immunoassay (EIA)

**Performed:** Sun-Sat

**Reported:** 1-2 days

**Note:**

**CPT Codes:** 80235

**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**

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**Oxcarbazepine Metabolite, Serum**

3017889, OXCARBAZ

**Specimen Requirements:**

**Patient Preparation:** Timing of specimen collection: Predose (trough) draw at steady state concentration.

**Collect:** Plain red.

**Specimen Preparation:** Separate serum from cells within 2 hours of collection. Transfer 1 mL serum to an ARUP standard transport tube. (Min: 0.5 mL)

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 hours; Refrigerated: 1 week; Frozen: 1 month 3 freeze/thaw cycles

**Methodology:** Quantitative Enzyme Immunoassay (EIA)

**Performed:** Sun-Sat

**Reported:** 1-2 days

**Note:**

**CPT Codes:** 80183

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

**Interpretive Data:**

This test measures monohydroxyoxcarbazepine (MHD). Adverse effects may include dizziness, fatigue, nausea, headache, somnolence, ataxia, and tremor.

**Reference Interval:**

Test Number	Components	Reference Interval		
	OXCARB Metabolite			
		Therapeutic Range	Toxic Range	
		10.0 - 35.0 ug/mL	>=40.0 ug/mL	

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

**NEW TEST**

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**14-3-3 eta Protein by ELISA, Serum**

3017890, 14-3-3 ETA

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Serum separator tube or red top tube.

**Specimen Preparation:** Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL)

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Nonserum, contaminated, heat-inactivated, severely hemolyzed, severely lipemic, or severely icteric specimens.

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month (avoid repeated freeze/thaw cycles)

**Methodology:** Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)

**Performed:** Tue

**Reported:** 1-8 days

**Note:**

**CPT Codes:** 83520

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

**Interpretive Data:**

The combination of serum 14-3-3 eta with rheumatoid factor (RF) and anticyclic citrullinated peptide (anti-CCP) may enhance sensitivity and demonstrates high specificity for rheumatoid arthritis (RA) diagnosis. Elevated serum 14-3-3 eta levels may be observed in both early and established RA patients, including those who are seronegative for both RF and anti-CCP antibodies. Elevated serum 14-3-3 eta concentrations are predictive of unfavorable clinical and radiological outcomes at diagnosis and posttreatment initiation. Negative or decreased levels of 14-3-3 eta from baseline correlate with diminished radiological progression and suboptimal treatment response.

**Reference Interval:**

Test Number	Components	Reference Interval
	14-3-3 eta Protein, Serum	0.19 ng/mL or less

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

**NEW TEST**

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**Early and Established Rheumatoid Arthritis (RA) Panel**

3017891, RAPANEL

**Specimen Requirements:**

**Patient Preparation:** Fasting specimen preferred.

**Collect:** Serum separator tube (SST) or red top.

**Specimen Preparation:** Allow serum to clot completely at room temperature before centrifuging. Transfer 2 mL serum to an ARUP standard transport tube. (Min: 1 mL) Serum is the only acceptable specimen type for this assay without a disclaimer.

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Nonserum, contaminated, heat-inactivated, hemolyzed, icteric, or severely lipemic specimens.

**Remarks:**

**Stability:** After separation from cells: Ambient: 24 hours; Refrigerated: 1 week; Frozen: 1 month (should not be thawed more than once)

**Methodology:** Semi-Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)/Quantitative Immunoturbidimetry/Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)

**Performed:** Sun-Sat

**Reported:** 1-8 days

**Note:**

**CPT Codes:** 83520; 86200; 86431

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

**Interpretive Data:**

Refer to report.

**Reference Interval:**

Test Number	Components	Reference Interval
	14-3-3 eta Protein, Serum	0.19 ng/mL or less
	Cyclic Citrullinated Peptide Ab, IgG/A	19 Units or less
	Rheumatoid Factor	0-14 IU/mL

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

**NEW TEST**

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**Gabapentin, Serum or Plasma**

3017893, GABAP-SP

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Plain red. Also acceptable: Dark green (sodium or lithium heparin), lavender (K2 or K3EDTA) or pink (K2EDTA).

**Specimen Preparation:** Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL serum or plasma to an ARUP standard transport tube. (Min: 0.2 mL)

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Whole blood. Gel separator tubes, light blue (citrate), or yellow (SPS or ACD solution).

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 Hours; Refrigerated: 1 week; Frozen: 1 month 3 freeze/thaw cycles

**Methodology:** Quantitative Enzyme Immunoassay (EIA)

**Performed:** Sun-Sat

**Reported:** 1-2 days

**Note:**

**CPT Codes:** 80171

**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](#)

**SC5b-9**

3017902, SC5B-9

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Pink (K2EDTA), Tan (K2EDTA), Royal blue (K2EDTA), or Lavender (EDTA).

**Specimen Preparation:** Separate plasma within 2 hours (1 hour is preferable) by centrifugation ~2700 rpm (1300 100 g) for 10 minutes. Transfer plasma (minimum 0.5 mL) to an ARUP standard transport tube and freeze immediately.

**Transport Temperature:** CRITICAL FROZEN. Separate specimens must be submitted when multiple tests are ordered.

**Unacceptable Conditions:** Nonfrozen specimens. Specimens exposed to repeated freeze/thaw cycles. Grossly hemolyzed, lipemic, and icteric specimens. Serum samples. Heparinized and lithium samples.

**Remarks:**

**Stability:** Ambient: Unacceptable; Refrigerated: Unacceptable; Frozen: 30 days

**Methodology:** Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)

**Performed:** Sun, Wed

**Reported:** 2-12 days

**Note:**

**CPT Codes:** 86160

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

**Interpretive Data:**

Elevated soluble C5b-9 (SC5b-9) levels indicate recent or ongoing activation of the complement system, while normal or reduced levels suggest no excessive activation. High SC5b-9 concentrations are associated with transplant-associated thrombotic microangiopathy (TA-TMA), a complication of hematopoietic stem cell transplants. Increased SC5b-9 may also occur in various conditions involving primary or secondary complement activation, such as immune-complex disease, infection, atypical hemolytic uremic syndrome, and C3 glomerulopathies. Due to a low specificity for SC5b-9 testing, results should be interpreted in combination with other clinical and



laboratory evidence of disease activity. Plasma SC5b-9 levels may be used to monitor the efficacy of complement inhibitor drugs, as elevated levels suggest insufficient complement blockage to effectively prevent the formation of the terminal attack complex.

Reference Interval:

Test Number	Components	Reference Interval
	C5b9 Soluble Terminal Complement Complex	Less than or equal to 260 ng/mL

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

**NEW TEST – Available Now**

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**CD38 by Immunohistochemistry**

3018046, CD38-IHC

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Tissue or cells.

**Specimen Preparation:** Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a Tissue Transport Kit (ARUP supply #47808 highly recommended) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787 (Min: 2 slides). If sending precut slides, do not oven bake.

**Transport Temperature:** Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.

**Unacceptable Conditions:** Specimens submitted with nonrepresentative tissue type. Depleted specimens.

**Remarks:** IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS: Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.

**Stability:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable

**Methodology:** Qualitative Immunohistochemistry (IHC)

**Performed:** Mon-Fri

**Reported:** 1-3 days

**Note:** This test is performed as a stain and return (technical) service only

**CPT Codes:** 88342

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

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
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**HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.**

**NEW TEST – Available Now**

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**p120 by Immunohistochemistry**

3018056, P120 IHC

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Tissue or cells.

**Specimen Preparation:** Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a Tissue Transport Kit (ARUP supply #47808 highly recommended) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787 (Min: 2 slides). If sending precut slides, do not oven bake.

**Transport Temperature:** Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.

**Unacceptable Conditions:** Specimens submitted with nonrepresentative tissue type. Depleted specimens.

**Remarks:** IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS: Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.

**Stability:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable

**Methodology:** Qualitative Immunohistochemistry (IHC)

**Performed:** Mon-Fri

**Reported:** 1-3 days

**Note:** This test is performed as a stain and return (technical) service only

**CPT Codes:** 88342

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

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
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**HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.**

**NEW TEST – Available Now**

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**MyoD1 by Immunohistochemistry**

3018057, MYOD1 IHC

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Tissue or cells.

**Specimen Preparation:** Formalin fix (10 percent neutral buffered formalin) and paraffin embed specimen (cells must be prepared into a cellblock). Protect paraffin block and/or slides from excessive heat. Transport tissue block or 5 unstained (3- to 5-micron thick sections), positively charged slides in a Tissue Transport Kit (ARUP supply #47808 highly recommended) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at 800-522-2787 (Min: 2 slides). If sending precut slides, do not oven bake.

**Transport Temperature:** Room temperature. Also acceptable: Refrigerated. Ship in cooled container during summer months.

**Unacceptable Conditions:** Specimens submitted with nonrepresentative tissue type. Depleted specimens.

**Remarks:** IMMUNOHISTOCHEMISTRY ORDERING AND SUBMISSION DETAILS: Submit electronic request. If you do not have electronic ordering capability, use an ARUP Immunohistochemistry Stain Form (#32978) with an ARUP client number. For additional technical details, contact ARUP Client Services at 800-522-2787.

**Stability:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable

**Methodology:** Qualitative Immunohistochemistry (IHC)

**Performed:** Mon-Fri

**Reported:** 1-3 days

**Note:** This test is performed as a stain and return (technical) service only

**CPT Codes:** 88342

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

Interpretive Data:

Reference Interval:

Test Number	Components	Reference Interval
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**HOTLINE NOTE: Refer to the Hotline Test Mix for interface build information.**

**NEW TEST**

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**HLA-A29 Genotyping, Birdshot Chorioretinopathy**

3018058, HLA A29

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Lavender (EDTA), pink (K2EDTA), or yellow (ACD solution A or B).

**Specimen Preparation:** Transport 5 mL whole blood. (Min: 3 mL).

**Transport Temperature:** Refrigerated

**Unacceptable Conditions:** Specimens collected in green (sodium or lithium heparin).

**Remarks:**

**Stability:** Ambient: 72 hours; Refrigerated: 1 week; Frozen: Unacceptable

**Methodology:** Polymerase Chain Reaction (PCR)/Sequence-Specific Oligonucleotide Probe Hybridization

**Performed:** Mon-Fri

**Reported:** 5-7 days

**Note:**

**CPT Codes:** 81381

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

**Interpretive Data:**

**Background Information for HLA-A29 Genotyping for Birdshot Chorioretinopathy:**

**Characteristics:** Birdshot chorioretinopathy (BSCR) is a progressive, bilateral, chronic autoimmune inflammatory disease of the eye. It is characterized by posterior uveitis with yellow-white choroid lesions in the fundus that resemble a shotgun splatter. Patients with BSCR may experience decreased vision, floaters, nyctalopia, dyschromatopsia, glare, and photopsia.

**Prevalence:** BSCR comprises up to 1.5%, of uveitis cases. Its prevalence ranges from 0.1 to 0.6 cases per 100,000 individuals across Europe and the U.S. Particularly prevalent in Caucasians, it is frequently diagnosed in individuals of Northern European ancestry, predominantly affecting middle-aged individuals, (mean onset age of 53 years), with a higher incidence among females.

**Inheritance:** Multifactorial.



**Cause:** The disease-causing factors are unknown. HLA-A29 is strongly associated with BSCR, with approximately 80-98% of patients testing positive, compared to about 7% positivity in healthy individuals across different ethnicities. This suggests a negative predictive value of HLA-A29 typing as high as 99%. HLA-A29 is associated with a 50-224 times greater relative risk of developing the disease.

**Clinical Sensitivity:** Approximately 80-98%, depending on ethnicity.

**Methodology:** Polymerase Chain Reaction/Sequence-Specific Oligonucleotide Probe Hybridization.

**Analytical Sensitivity and Specificity:** >99 percent.

**Limitations:** Other genetic and nongenetic factors that influence BSCR are not evaluated. Other rare, or novel alleles may occur which may lead to false-positive or false-negative results. In cases where an HLA allele cannot be resolved unambiguously, the allele assignment will be reported as the most common, based on allele frequencies from the Common, Intermediate and Well-Documented Alleles Catalogue version 3.0.0 (Hurley CK, et al, 2020).

**Alleles tested:** HLA-A\*29 alleles.

**Disclaimer Information:**

This test was developed and its performance characteristics determined by the Histocompatibility & Immunogenetics Laboratory at the University of Utah Health under the accreditation guidelines from the American Society for Histocompatibility and Immunogenetics (ASHI).

**Performed at:** Histocompatibility and Immunogenetics Laboratory, University of Utah Health, 417 Wakara Way, Suite 3220, Salt Lake City, UT 84108.

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

**Reference Interval:**

**By Report**

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

**NEW TEST – Available Now**

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**Vasoactive Intestinal Polypeptide (VIP), Plasma**

3018202, VIP PLA

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Chilled lavender or pink (K2EDTA or K3EDTA).

**Specimen Preparation:** Collect in a prechilled tube. Mix well, then place on ice until centrifugation. Transfer 2 mL of plasma to an ARUP standard transport tube (Min: 0.5 mL). Freeze at -20.

**Transport Temperature:** Frozen. Separate specimens must be submitted when multiple tests are ordered.

**Unacceptable Conditions:** Grossly hemolyzed, lipemic, icteric, or clotted specimens.

**Remarks:**

**Stability:** After separation from cells: Room Temperature: 4 hours; Refrigerated: 24 hours; Frozen: 3 months.

**Methodology:** Quantitative Enzyme-Linked Immunosorbent Assay (ELISA)

**Performed:** Mon, Thu

**Reported:** 3-7 days

**Note:**

**CPT Codes:** 84586

**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	Test Name	Reference Interval
3018312	Vasoactive Intestinal Polypeptide (VIP)	0-89.1 pg/mL

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



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

Effective Date: **October 21, 2024**

**NEW TEST**

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**Cystatin and Creatinine With eGFR**

3018316, GFR CYS

**Specimen Requirements:**

**Patient Preparation:**

**Collect:** Serum separator tube, plasma separator tube, K2EDTA, K3EDTA, or lithium heparin

**Specimen Preparation:** Allow serum tube to clot completely at room temperature. Separate serum or plasma from cells within 2 hours of collection. Transfer 1 mL plasma or serum or plasma to an ARUP standard transport tube. (Min: 0.2 mL)

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Blood collected in capillary blood collection tubes is unsuitable for use in this assay.

**Remarks:** Patient age and sex are required for calculation.

**Stability:** After separation from cells: Ambient: 7 days; Refrigerated: 7 days; Frozen: 3 months

**Methodology:** Quantitative Enzymatic Assay

**Performed:** Sun-Sat

**Reported:** Within 24 hours

**Note:**

**CPT Codes:** 82610; 82565

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

**Interpretive Data:**

The estimated glomerular filtration rate (eGFR) was calculated using the 2021 CKD-EPI eGFR creatinine-cystatin equation. This equation is validated in individuals 18 years of age and older. Accurate estimation of GFR requires stable day-to-day filtration markers (creatinine and cystatin C). Filtration markers are influenced by non-GFR determinants, including generation from cells and diet, tubular secretion and reabsorption, and extra-renal elimination. These determinants may affect eGFR accuracy. The eGFR is normalized to a body surface area of 1.73 square meters.

GFR Category	GFR (mL/min/1.73 square meters)	Interpretation
G1	90 or greater	Normal to high*
G2	60-89	Mild decrease*
G3a	45-59	Mild to moderate decrease
G3b	30-44	Moderate to severe decrease
G4	15-29	Severe decrease
G5	14 or less	Kidney failure
		*In the absence of evidence of kidney damage, neither GFR category G1 nor G2 fulfill the criteria for CKD (Kidney Int Suppl 2013;3:1-150)

Reference Interval:

Refer to Report

Calculated GFR -  $\geq$  60 mL/min / 1.73 square meters

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

**NEW TEST – Available Now**

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Allergen, Food, Walnut Component rJug r 1, IgE

3018558, JUG R 1

**Specimen Requirements:**

**Patient Preparation:** Multiple patient encounters should be avoided.

**Collect:** Serum separator tube.

**Specimen Preparation:** Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at [www.aruplab.com/testing/resources/specimen](http://www.aruplab.com/testing/resources/specimen).

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Postmortem samples

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month

**Methodology:** Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay

**Performed:** Sun-Sat

**Reported:** 1-3 days

**Note:**

**CPT Codes:** 86008

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

**Interpretive Data:**

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

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

Reference Interval:

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

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

**NEW TEST – Available Now**

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**Allergen, Food, Walnut (Juglans spp.) With Reflex to Components, IgE**

3018559, WALNUT R

**Specimen Requirements:**

**Patient Preparation:** Multiple patient encounters should be avoided.

**Collect:** Serum separator tube.

**Specimen Preparation:** Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.35 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at [www.aruplab.com/testing/resources/specimen](http://www.aruplab.com/testing/resources/specimen).

**Transport Temperature:** Refrigerated

**Unacceptable Conditions:** Postmortem samples

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month

**Methodology:** Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay

**Performed:** Sun-Sat

**Reported:** 1-3 days

**Note:** This assay will initially test walnut whole allergen. If the walnut whole allergen result is greater than or equal to 0.1 kU/L, walnut components rJug r 1 and rJug r 3 will be ordered. Additional charges apply.

**CPT Codes:** 86003; if reflexed order 86008x2

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

**Interpretive Data:**



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

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

Reference Interval:

Test Number	Components	Reference Interval
	Allergen, Food, Walnut ( <i>Juglans</i> spp) IgE	Less than or equal to 0.34 kU/L

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

**NEW TEST – Available Now**

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**Allergen, Food, Cashew Component rAna o 3, IgE**

3018561, ANA O 3

**Specimen Requirements:**

**Patient Preparation:** Multiple patient encounters should be avoided.

**Collect:** Serum separator tube.

**Specimen Preparation:** Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.25 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at [www.aruplab.com/testing/resources/specimen](http://www.aruplab.com/testing/resources/specimen).

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Postmortem samples

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month

**Methodology:** Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay

**Performed:** Sun-Sat

**Reported:** 1-3 days

**Note:**

**CPT Codes:** 86008

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

**Interpretive Data:**

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

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

**Reference Interval:**

Test Number	Components	Reference Interval
	Allergen, Cashew Component, rAna o 3	Less than or equal to 0.09 kU/L

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

**NEW TEST – Available Now**

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**Allergen, Food, Cashew With Reflex to Components, IgE**

3018562, CASHEW R

**Specimen Requirements:**

**Patient Preparation:** Multiple patient encounters should be avoided.

**Collect:** Serum separator tube.

**Specimen Preparation:** Separate serum from cells ASAP or within 2 hours of collection. Transfer 0.5 mL serum to an ARUP standard transport tube. (Min: 0.35 mL). For multiple allergen orders refer to "Allergen Specimen Collection Instructions" at [www.aruplab.com/testing/resources/specimen](http://www.aruplab.com/testing/resources/specimen).

**Transport Temperature:** Refrigerated.

**Unacceptable Conditions:** Postmortem samples

**Remarks:**

**Stability:** After separation from cells: Ambient: 48 hours; Refrigerated: 2 weeks; Frozen: 1 month

**Methodology:** Quantitative ImmunoCAP Fluorescent Enzyme Immunoassay

**Performed:** Sun-Sat

**Reported:** 1-3 days

**Note:** This assay will initially test cashew whole allergen. If the cashew whole allergen result is greater than or equal to 0.1 kU/L, the cashew component rAna o 3 will be ordered. Additional charges apply.

**CPT Codes:** 86003; if reflexed add 86008

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

**Interpretive Data:**

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

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

Reference Interval:

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

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

## Inactivations

The following will be discontinued from ARUP's test menu on **October 21, 2024**

Replacement test options are indicated when applicable.

Test Number	Test Name	Refer to Replacement Test
0020407	Lactose Tolerance(Inactive as of 10/21/24)	
0082024	Fetal Fibronectin(Inactive as of 10/21/24)	
0090001	Acetaminophen(Inactive as of 10/21/24)	
0090057	Gabapentin (Change effective as of 10/21/2024: Refer to 3017893 in the October Hotline)	Gabapentin, Level (3017893)
0090090	Phenytoin(Change effective as of 10/21/24: Refer to 0090141 in the October Hotline)	Phenytoin, Free And Total (0090141)
0090251	Salicylate Assay(Inactive as of 10/21/24)	
0090260	Carbamazepine, Total(Change effective as of 10/21/24: Refer to 2011763 in the October Hotline)	Carbamazepine, Free and Total, Ser/Pla (2011763)
0090290	Valproic Acid(Change effective as of 10/21/24: Refer to 0099310 in the October Hotline)	Valproic Acid, Free (0099310)
0095229	Cystatin C, Serum with Reflex to Estimated Glomerular Filtration Rate (eGFR) (Change effective as of 10/21/24: Refer to 3018316 in the October Hotline.)	Cystatin and Creatinine With eGFR (3018316)
0098834	Oxcarbazepine or Eslicarbazepine Metabolite (MHD) (Change effective as of 10/21/2024: Refer to 3017889 in the October Hotline)	Oxcarbazepine or Eslicarbazepine Metabolite (MHD) (3017889)

Test Number	Test Name	Refer to Replacement Test
2000133	Cytology, SurePath Liquid-Based Pap Test and Human Papillomavirus (HPV), High Risk with 16 and 18 Genotype by PCR, SurePath. (for routine co-testing in women over 30) (Change effective as of 10/21/2024: Refer to 2000136)	Cytology, ThinPrep Pap Test and Human Papillomavirus (HPV) High Risk Screen by Transcription-Mediated Amplification (TMA), With Reflex to Genotypes 16 and 18/45 (2000136)
2000134	Cytology, SurePath Liquid-Based Pap Test (Change effective as of 10/21/2024: Refer to 2000137)	Cytology, ThinPrep Pap Test (2000137)
2000135	Cytology, SurePath Liquid-Based Pap Test with Reflex to Human Papillomavirus (HPV), High Risk with 16 and 18 Genotype by PCR, SurePath (Change effective as of 10/21/2024: Refer to 2000138)	Cytology, ThinPrep Pap Test With Reflex to Human Papillomavirus (HPV), High Risk Screen by Transcription-Mediated Amplification (TMA), With Reflex to Genotypes 16 and 18/45 (2000138)
2003182	Lacosamide, Serum or Plasma (Change effective as of 10/21/2024: Refer to 3017887 in the October Hotline)	Lacosamide, Serum (3017887)
3003760	Human Immunodeficiency Virus 1 (HIV-1) by Qualitative NAAT (Change effective as of 10/21/24; Refer to 3017779 in the October Hotline)	Human Immunodeficiency Virus 1 & 2 (HIV-1/HIV-2) by Qualitative NAAT (3017779)