Epic Order Code	Mnemonic/Gene Name	Test Name	Lab	Specimen Requirement	Notes/Comments
LAB5910 (MDNA)		MDNA Send-out, Not Listed	*Varies	Unless otherwise indicated in the order comments: Collect 3 mL blood (Min: 1 mL) in EDTA (lavender top) tube. Refrigerate whole blood. Refrigerate\Ambient OK	Example Laboratories: Invitae, GeneDx
LAB5744 (RLTO)		RLTO Send-out, Not listed	*Varies	Please call Referral Testing at 974-1414. After hours: refer to the Mayo Test Catalog (link in notes) or a web search of the performing laboratory if indicated by provider in comments	Mayo Test Catalog
LAB5744 (RLTO)		Hepatitis Delta Virus, Quantitative PCR	ARUP	Collect 3ml (Min: 1.5 ml) blood in SST (gold top tube). Spin and freeze 1ml (Min: 0.5ml) serum in mailout tube. Ambient 24hrs\Refrigerated 1wk\Frozen 4 mon	
LAB5744 (RLTO)		Pancreatobiliary FISH	ARUP	NOTIFY REFERRAL TESTING Bile duct aspirate, bile duct brushing, hepatobiliary aspirate or hepatibiliary brushing in PreservCyt or CytoLyt solution. Refrigerate ThinPrep vial. Refrigerate 7d\Ambient 7d	Synonym: Biliary Tract Malignancy
LAB5744 (RLTO)		Chlamydia trachomatis culture	ARUP	Collect cervical, eye, rectal swab, or peritoneal fluid. Newborns: NG aspirate, swab or washing. Place swab, fluid or washing in 3ml universal transport medium. Place specimen in red Referral Testing bin on top shelf of -70 Freezer. Ambient 1 hr\Refrigerate 48 hr\Frozen -70 1 month	
LAB5744 (RLTO)		Coxackie B (1-6) Abs, serum	ARUP	Collect 6 ml (Min: 3 ml) blood in gold top tube. <b>DO NOT OPEN TUBE.</b> Spin and refrigerate gold top in Referral Testing refrigerated rack. Refrigerate 14d\Frozen 1yr\Ambient 48hrs	
LAB5744 (RLTO)		Coxsackie A Abs, serum	ARUP	Collect 6 ml (Min: 3 ml) blood in gold top tube. <b>DO NOT OPEN TUBE.</b> Spin and refrigerate gold top in Referral Testing refrigerated rack. Refrigerate 14d\Frozen 30d\Ambient 7d	
LAB5744 (RLTO)		Echovirus Abs, serum	ARUP	Collect 6 ml (Min: 3 ml) blood in gold top tube. <b>DO NOT OPEN TUBE</b> . Spin and refrigerate gold top in Referral Testing refrigerated rack. Refrigerate 14d\Frozen 1yr\Ambient 48hrs	
LAB5744 (RLTO)		Heinz Body Stain	ARUP	Collect 2 (Min: 2ml) EDTA (Lavender top) tubes. **Patient must be >6mon old** (Sodium or Lithium Heparin (Green top) also acceptable.) Refrigerate whole blood. Refrigerate 96 hrs\Frozen NO\Ambient NO	
LAB5744 (RLTO)		Pseudocholinesterase/ Dibucaine	ARUP	**Specimen must be drawn prior to surgery or more than 2 days following surgery. <b>DO NOT</b> collect in recovery room. Collect 3 ml (Min: 0.75 ml) blood in serum gel tube. Spin within 2 hours of collection and refrigerate 1.0 ml (0.25 ml) serum in mailout tube. Ambient 4hrs\Refrigerate 7d\Frozen 3 mon	

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LAB5744 (RLTO)	TLR	Toll-Like Receptor Function	ARUP	**MUST BE COLLECTED MON-THURS ONLY** NOTIFY REFERRAL TESTING Collect 10ml (Min: 7 ml adult, 3ml, infant) blood in sodium heparin (green top) tube. **Normal control specimen from healthy, unrelated individual required** Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Ambient 48hrs\Refrigerate NO\Frozen NO	
LAB5744 (RLTO)		Succinylacetone, urine	ARUP via Mayo	Collect 3 ml (Min: 0.3 ml) urine in random container. Pour into urine mailout tube and freeze. Ambient NO/Refrigerate NO/Frozen 1 month	
LAB5744 (RLTO)	Vitamin E Alpha, Gamma	Vitamin E, Serum or Plasma (Tocopherol)	ARUP via Mayo	Collect 4 ml blood in Sodium Heparin (Green top tube), PROTECT FROM LIGHT. Spin and freeze 1.0 mL (Min: 0.3 mL) plasma in Amber mailout tube. Also acceptable: serum poured off from serum-gel tube that has been protected from light. Refrigerate 1 mon\Frozen 1yr	Test includes: Vitamin E (a- Tocopherol) and Vitamin E (g- Tocopherol)
LAB5744 (RLTO)		HSV IgM Ab	ARUP/Labcorp	Collect 3 ml blood in SST (gold top) tube. Spin and refrigerate 1.0 ml serum. Refrigerate 14 d\Frozen 14 days\Ambient 2 d	
LAB5910 (MDNA)	Psychotropic Pharmacogenetics	GeneSight	Assurex Health, Inc.	Physician/nurse to collect 1-2 buccal swabs. Label with patient armband label and place in envelope in GeneSight kit. Physician must sign envelope. Place in Referral Testing Box under Processing hood.	
LAB5744 (RLTO)	AAV9 Ab/ Repeat AAV9 Ab	AAV9 antibody/ Repeat AAV9 antibody	Athena	Collect 6 ml (Min: 1.5 ml) blood in SST (gold top) tube. Spin within 48 hrs of collection and refrigerate in mailout tube. Refrigerate 14d\ Frozen 14d\ Ambient 72 hrs	
LAB5910 (MDNA)		SMA to Athena	Athena	Collect 3 ml an EDTA (lavender top) tube (Min: 0.5 ml <4yr old, 2 ml >/=4yr old) Refrigerate whole blood. Ambient 10d\Refrigerate 10d\Frozen NO	
LAB5910 (MDNA)		ThyroSeq® FNA Analysis	Aurora Diagnostics	CALL REFERRAL TESTING AT 984-974-1414 for assistance with collection instructions. Freeze FNA collect tube, KEEP SAMPLE IN BROWN BAGGIE, MUST BE PROTECTED FROM LIGHT. Ambient 3hrs\Refrigerate 24hrs\Frozen 12mon	
LAB5744 (RLTO)	Thymidine	Thymidine Determination - Plasma	Baylor Miraca Genetics Laboratories of Medicine	Collect blood in Sodium Heparin (green top) tube. Spin and freeze 1.0 mL (Min: 0.5ml) plasma. Requisition link located in Notes/Comments Frozen 1 month/Refrigerate NO/Ambient NO	https://www.bcm.edu/geneticlabs/ind ex.cfm?PMID=9247
LAB5744 (RLTO)	Creatine/GAA, Plasma	Creatine/GAA (guanidinoacetate) determination, plasma	Baylor via Mayo	Collect 6 ml (Min: 3ml) blood in Na heparin (green top) tube. Spin and freeze 2ml (Min: 1ml) plasma in mailout tube. Requisition link located in Notes/Comments. Frozen 7d\Refrigerate NO\Ambient NO	http://bmgl.com/media/wysiwyg/bmgl /pdfs/Requisitions/biochem021517.pd f
LAB5744 (RLTO)	Global MAPS	Global Metabolomic Assisted Pathway Screen	Baylor via Mayo	Draw 6 ml (Min: 3ml) blood in EDTA (lavender top) tube. Spin as soon as possible and immediately freeze 2ml (Min: 1ml) plasma in mailout tube. Frozen 7d **History form required, see link in Notes/Comments	https://www.baylorgenetics.com/wp- content/uploads/2021/08/baylor- genetics-global-maps-req.pdf

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LAB5744 (RLTO)		Zika Virus	CDC/NC State Lab	Call Special Micro at 974-1830 for specimen requirements. After hours call Micro processing (974-2361, #2)	
LAB5744 (RLTO)		Phosphoethanolamine, Quantitative, Urine	Children's Hospital Colorado via Mayo	Collect 2 mL minimum random urine, morning specimen preferred. Freeze 2ml (Min: 0.3 ml) immediately in urine mailout tube. Complete and submit request form with sample (see link in notes/comments section)	https://www.childrenscolorado.org/contentassets/2a12698fe90445b89b6ac977ecace292/bgl-092016.pdf
LAB5744 (RLTO)	VLCADD	Very long-chain acyl-coenzyme A dehydrogenase deficiency (VLCAD) Enzyme Assay	Children's Hospital of Colorado	Must be collected M-Th; 10am-2pm. NOTIFY REFERRAL TESTING. MUST BE RECEIVED BY PERFORMING LAB WITHIN 24 HRS OF COLLECTION. Collect 10 ml (Min: 5 ml) blood in an EDTA (lavender) top tube. Normal donor sample required (same sample volume). Refrigerate whole blood.	http://www.childrenscolorado.org/contentassets/2a12698fe90445b89b6ac977ecace292/bgl-fillable-052016.pdf
LAB5744 (RLTO)		Trimethylaminuria testing in urine	Children's Hospital of Colorado	CALL REFERRAL TESTING AT 984-974-1414 for assistance with collection instructions. Collect 1 – 5 cc morning void urine, collected when the patient is eating an unrestricted diet and odor is present. The urine specimen should be acidified to pH = 4 (if possible), and should be frozen immediately in a durable, tightly-sealed specimen tube and stored frozen until shipment. (This is a pre-choline load urine specimen) A second urine specimen should then be collected post-choline load, about 12 hours after the patient has ingested choline bitartrate with a glass of orange juice or water. Immediately after each collection, each specimen should be acidified to pH = 4 (if possible) and should be frozen in a durable, tightly-sealed specimen tube. Please clearly label each of the specimens "pre-choline" or "post-choline" and store both specimens frozen until shipment. Freeze urine in urine mailout container after sample has been acidified.	https://www.childrenscolorado.org/contentassets/2a12698fe90445b89b6ac977ecace292/bgl-092016.pdf
LAB5744 (RLTO)	P50	Hemoglobin-Oxygen Affinity (p50)	Cincinnati Children's	3 mL EDTA (lavender), ship refrigerated Note: Should be accompanied by a normal control blood	Synonym: P50 Oxygen Disassociation
LAB5744 (RLTO)		Apoptosis (Fas-Mediated)	Cincinnati Children's Hospital Medical Center	MUST be collected on WEDNESDAYS ONLY; 10am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION. Collect 20 ml (Min: 10 ml) blood in ACD-A (Yellow top ) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood.	
LAB5744 (RLTO)		B Cell Panel	Cincinnati Children's Hospital Medical Center	Must be collected M-Th; 10am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION. Collect 3ml (Min: 1ml) blood in EDTA (lavender top) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Requisition link located in Notes/Comments. Must include most recent CBC results with sample.	https://www.cincinnatichildrens.org/- /media/cincinnati%20childrens/home/ service/h/human-genetics/human- genetics-shared-pdfs/requisitions/dil- req-pdf.pdf?la=en

Epic Order Code	Mnemonic/Gene Name	Test Name	Lab	Specimen Requirement	Notes/Comments
LAB5744 (RLTO)		BAFF	Cincinnati Children's Hospital Medical Center	Must be collected M-Th; 10am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION Collect 3ml (Min: 1ml) blood in EDTA (lavender top) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Requisition link located in Notes/Comments.	https://www.cincinnatichildrens.org/- /media/cincinnati%20childrens/home/ service/h/human-genetics/human- genetics-shared-pdfs/requisitions/dil- req-pdf.pdf?la=en
LAB5744 (RLTO)	CD40L/ICOS	CD40 Ligand	Cincinnati Children's Hospital Medical Center	Must be collected M-Th; 10am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION. Collect 5 ml (Min: 3ml) blood in Na Heparin (Green-top) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Requisition link located in Notes/Comments.	https://www.cincinnatichildrens.org/-/media/cincinnati%20childrens/home/service/h/human-genetics/human-genetics-shared-pdfs/requisitions/dil-req-pdf.pdf?la=en
LAB5744 (RLTO)		Lymphocyte Activation Markers	Cincinnati Children's Hospital Medical Center	Must be collected M-Th; 10am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION. Collect 5 ml (Min: 3 ml) blood in Na Heparin (Greentop) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Requisition link located in Notes/Comments.	https://www.cincinnatichildrens.org/-/media/cincinnati%20childrens/home/service/h/human-genetics/human-genetics-shared-pdfs/requisitions/dil-req-pdf.pdf?la=en
LAB5744 (RLTO)		Osmotic Gradient Ektacytometry	Cincinnati Children's Hospital Medical Center	Collect 3ml blood in EDTA (lavender top) tube. Must be collected M-Th; 10am-2pm. NOTIFY REFERRAL TESTING. PERFORMING LAB PREFERS SAMPLE REACH THEM WITHIN 24HRS OF COLLECTION Refrigerate whole blood. **Requires a stained slide and a normal control. Stability 48 hours refrigerated.	
LAB5744 (RLTO)		RBC Pit Count	Cincinnati Children's Hospital Medical Center	Collect 1 EDTA (lavender top) tube (Min: 0.5 ml). Refrigerate EDTA tube. Refrigerate 3d	
LAB5744 (RLTO)	CD163	Soluble CD163	Cincinnati Children's Hospital Medical Center	Must be collected M-TH; 10am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION Collect 3 ml (Min: 1ml) blood in EDTA (Lavender top) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood.	
LAB5744 (RLTO)		VEGF-D	Cincinnati Children's Hospital Medical Center via Mayo	Collect 6 ml (Min: 3 ml) blood in serum separator (SST) tube. Spin and freeze 3 ml (Min: 1ml) serum.	
LAB5744 (RLTO)		PRA C1q	ClinImmune Labs	Collect 1 red top tube. Whole blood <b>MUST BE KEPT AMBIENT</b> , place sample in Referral Testing Box under Processing Hood. Ambient 15d **must send HLA results with sample.	

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LAB5744 (RLTO)		Acylcarnitine, plasma (STAT)	Duke	Draw blood in a green top (Sodium Heparin without gel) tube. Spin and freeze plasma (min: 0.25mL) in a mail-out tube. Frozen (preferred)/Refrigerated ok 72hr stability	
LAB5744 (RLTO)		Amino Acids, Plasma (STAT)	Duke	Draw blood in a green top (Sodium Heparin without gel) tube.  Spin and freeze plasma (min: 0.25mL) in a mail-out tube. Frozen (preferred)/Refrigerated ok 72hr stability	
LAB5744 (RLTO)		L-Carnitine Levels, F&T, Plasma (STAT)	Duke	Draw blood in a green top (Sodium Heparin without gel) tube.  Spin and freeze plasma (min: 0.25mL) in a mail-out tube. Frozen (preferred)/Refrigerated ok 72hr stability	
LAB5744 (RLTO)		Organic Acids, Urine (STAT)	Duke	Collect 5mL from random urine. Aliquot into urine mailout tube and Freeze.	
LAB5744 (RLTO)		Euglobulin Lysis Time	Esoterix Coagulation via Mayo	Collect 2 Sodium Citrate (light blue) tubes. Spin and freeze 2 mL (1 mL min) plasma.	
LAB5910 (MDNA)	FIP1L1/PDGFRA	FIP1L1-PDGFRA Fusion Transcript Detection, RNA-PCR	Hematologics, Inc.	Collect 10 ml blood in EDTA (lavender top) tube. Refrigerate whole blood.	
LAB5744 (RLTO)	Anti-Centromere Ab	Centromere Ab	Immunology	Testing performed in Immunology Lab as part of ANA Screen	
LAB5744 (RLTO)		Pancreastatin	Interscience Institute via Mayo	1. Patient should not be on any medications that may influence Insulin levels, if possible, for at least 48 hours prior to collection.  2. Patient should be fasting 10 hours prior to collection. Patient may drink plain water, no other liquid is acceptable. Collect 10 mL of blood in special Z-tube (Obtain from Referral Testing/Core Lab Processing Refrigerator). Spin and freeze 3ml (Min: 1ml) plasma immediately.  Frozen 60 days\Refrigerate NO\Ambient NO	
LAB5744 (RLTO)		Substance P	InterScience Institute via Mayo	Patient preparation: 1) Patient should be fasting 10-12 hours prior to collection. 2) Antacid medication or medications that affect intestinal motility should be discontinued, if possible, for at least 48 hours prior to specimen collection. Collect 10 mL of blood in special Z-tube (Obtain from Referral Testing/Core Lab Processing Refrigerator). Spin and freeze 3ml (Min: 1ml) plasma immediately.  Frozen 30d\Refrigerate NO\Ambient NO	
LAB5744 (RLTO)		Growth Hormone Releasing Hormone	Interscience Institute via Mayo	Collect 9 ml (Min: 3 ml) blood in red top or gold top (SST) tube. Spin and freeze 3 ml (Min: 1 ml) serum in mailout tube. Frozen 90 d	

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LAB5744 (RLTO)		Pepsinogen I	Interscience Institute via Mayo	Patient should be fasting 10-12 hours prior to collection of specimen. Antacids or other medications affecting stomach acidity or gastrointestinal motility should be discontinued, if possible, for at least 48 hours prior to collection Collect 6ml blood in red top or gold top (SST) tube. Spin and freeze 3 ml (Min: 1 mL) serum in mailout tube. Frozen 14d	
LAB5744 (RLTO)		Hepcidin Idx	IntrinsicDx via Mayo	Draw blood in a Red Top Tube. Immediately spin and freeze 1mL of serum in mailout tube (Min 0.5mL). Frozen stability 6 years	
LAB5744 (RLTO)		aHUS (complement-mediated TMA) Panel	Iowa MORL	Collect at least 6 mL in a red top serum tube AND 6 mL in lavender top EDTA tubes. Spin samples and aliquot into clearly labeled aliquot tubes, "RED TOP SERUM" and "LAVENDER EDTA PLASMA". Freeze immediately - critical frozen. Minimum volume: 2 mL serum and 2 mL plasma.	
LAB5744 (RLTO)		C3 Glomerulopathy Complement Panel (C3G)	Iowa MORL	Collect at least 6 mL in a red top serum tube AND 6 mL in lavender top EDTA tubes. Spin samples and aliquot into clearly labeled aliquot tubes, "RED TOP SERUM" and "LAVENDER EDTA PLASMA". Freeze immediately - critical frozen. Minimum volume: 2 mL serum and 2 mL plasma.	
LAB5744 (RLTO)		Toxoplasma Infant Panel (<6mon old) Confirmation Testing	Sutter Health Palo	**Child and Maternal sample required, see Toxoplasma Maternal Serum Panel** Collect 9 ml (Min: 1.5 ml) blood in serum separator or red top tube. Spin and refrigerate 3ml (Min: 0.5 ml) serum in mailout tube. Refrigerat 7d\Ambient 24hrs\Frozen**Gross hemolysis, icterus or lipemia is unacceptable.	http://www.pamf.org/serology/Newb orns.pdf
LAB5744 (RLTO)		Toxoplasma Maternal Serum Panel Confirmation Testing	Jack S Remington Lab - Sutter Health Palo Alto Medical Foundation	**Child and Maternal sample required, see Toxoplasma Infant Panel** Collect 9 ml (Min: 1.5 ml) blood in serum separator or red top tube. Spin and refrigerate 3ml (Min: 0.5 ml) serum in mailout tube. Refrigerat 7d\Ambient 24hrs\Frozen**Gross hemolysis, icterus or lipemia is unacceptable.	
LAB5744 (RLTO)		Plasma Very Long Chain Fatty Acids	Kennedy Krieger Institute	NOTIFY REFERRAL TESTING Collect 1-3 ml blood in EDTA (lavender top tube). Refrigerate whole blood.	
LAB5744 (RLTO)		RBC Total Lipid Fatty Acid Profile/RBC Essential Fatty Acid Profile	Kennedy Krieger Institute	<b>NOTIFY REFERRAL TESTING.</b> Collect 3 ml (Min: 1.5 ml) blood in EDTA (lavender top tube). Refrigerate whole blood. 48 hr. stability.	
LAB5744 (RLTO)		Cholestanol	Kennedy Krieger Institute	Collect 3ml (Min: 3ml) blood in EDTA (lavender top) tube. (sodium heparin is also acceptable.) Spin and freeze 1.0 ml (Min: 1.0ml) plasma in mailout tube. Frozen	

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LAB5744 (RLTO)		Plasmologen	Kennedy Krieger Institute	Must collect M-Th only. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 24HRS OF COLLECTION Collect 3 ml (Min: 1.5 ml) whole blood in EDTA (lavender top) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood.	
LAB5744 (RLTO)		3-Methylglutaconic acid	Kennedy Krieger Institute via Mayo	Collect 5ml from random urine. Aliquot into urine mailout tube and Freeze.	
LAB5744 (RLTO)		ADAMTS13 ANTIBODY	LabCorp	Collect 1 Sodium citrate (light blue) top tube. Spin down, remove plasma. Give to Coag bench with mailout aliquot tube to spin again (for platelet poor plasma). Freeze plasma. Refrigerate NO/Frozen 14d/Ambient NO	
LAB5744 (RLTO)		Apixaban	LabCorp	Draw blood in a sodium citrate (light blue-top) tube (preferred), lavender-top EDTA or green-top Heparin (no gel). Spin and refrigerate plasma (min: 1 mL) in a mail-out tube. Ambient 7d/Refigerated or Frozen 14d	Synonym: Eliquis This test has a different methology from the Mayo Apixaban, Anti-Xa
LAB5744 (RLTO)	Savaysa	Edoxaban, LC/MS	LabCorp	Collect 1 full sodium citrate (light blue top) tube. Spin and freeze 1.0 ml (Min: 0.5 ml) plasma in mailout tube. Ambient 6hr\Frozen	
LAB5744 (RLTO)		Gaucher Disease Biomarkers: CHITO, TRAP	LabCorp	Collect 7ml (Min: 2-5ml) blood in gold top Serum-separator (gel) tube. Spin and make one aliquot for CHITO and one aliquot for TRAP in separate mail-out tubes. Refrigerated 4d stability	
LAB5744 (RLTO)		Myelin Basic Protein, CSF	LabCorp	Centrifuge CSF. Aliquot supernatant ensuring that residual fibrin and celluar matter has been removed and refrigerate 1.0 mL (Min: 0.8 mL) CSF in mailout tube.  Refrigerate 14d\Frozen 14d\Ambient 14d	
LAB5744 (RLTO)		Plasma GL-3	LabCorp	Collect 5 mL blood in a Sodium Heparin (Green Top) tube *no gel*. Spin and freeze plasma (min: 1 mL) in a mailout tube. Frozen (preferred) 90d\Refergerate 14d	Synonyms: Plasma Gb3, Plasma globotriaosylceramide
LAB5744 (RLTO)		Plasma Lyso-GL-1	LabCorp	Collect 3-4 mL blood in an EDTA (Lavender Top) tube. Spin and freeze plasma (min: 1 mL) in a mailout tube. Frozen (preferred) 90d\Refergerate 14d	Synonym: Plasma glucosylsphingosine
LAB5744 (RLTO)		Plasma Lyso-GL-3	LabCorp	Collect 5 mL blood in a Sodium Heparin (Green Top) tube *no gel*. Spin and freeze plasma (min: 1 mL) in a mailout tube. Frozen (preferred) 90d\Refergerate 6d	Synonyms: Plasma Lyso-Gb3, Plasma globotriaosylphingosine
LAB5744 (RLTO)		Rituximab Drug Concentration and Anti-Rituximab Antibody Level	LabCorp	Collect 9ml (3ml min) blood in red top or serum gel tube. Spin within 45 min of collection and freeze 3ml (Min: 1ml) in mailout tube. Frozen 14d\Refrigerate 14d\Ambient 7d	
LAB5744 (RLTO)		Human Anti-Mouse Antibody (HAMA), ELISA	LabCorp via Mayo	Collect 1.2 ml (Min: 0.6 ml) blood in a plain, red-top tube(s). (Serum gel tube is acceptable.) Spin and refrigerate 0.4 mL (Min: 0.2 ml)of serum.	

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LAB5744 (RLTO)		Acanthamoeba species Molecular Detection, PCR, Ocular	Mayo	<u>Tissue:</u> Submit tissue in sterile container with 1ml of sterile saline or VTM. (Min: 5mm biopsy) <u>Swab/scrapings:</u> swish the collection device in 1ml of sterile saline or VTM. Remove collection device from collection container—NO SCALPEL BLADES OR WOODEN SWABS accepted. Contact lens: Place entire contact lens in sterile container with 1ml sterile saline or VTM. Refrigerate container. Refrigerate 7d	
LAB5744 (RLTO)		Arixtra (Fondaparinux) Level	Мауо	Sample should be drawn approximately 3 hours after injection. Collect 1 light blue top tube. Spin in refrigerated centrifuge. Deliver spun sample to coagulation bench. COAG: Aliquot 0.5 ml platelet poor plasma into mailout tube. (Min: 0.3 ml) Store in referral testing rack in freezer. Frozen 28d	
LAB5744 (RLTO)	втк	Bruton Tyrosine Kinase (Btk) Protein Expression	Мауо	Must be collected M-Th only and not the day before a holiday.  NOTIFY REFERRAL TESTING Collect 5 ml (Min: 2ml) blood in  EDTA (lavender) top tube. Keep whole blood ambient. Place sample in Referral Testing Box under Processing Hood. Ambient 72hrs	
LAB5744 (RLTO)	Quantitative CMV Immune Competence Assay	Cytomegalovirus (CMV) CD8 T-Cell Immune Competence, Quantitative Assessment	Мауо	COLLECT MON-THURS ONLY. MUST BE RECEIVED AT MAYO WITHIN 48HRS OF COLLECTION. NOTIFY REFERRAL TESTING. HX form required, see link in Notes/Comments. Collect 20 ml (Min: 10 ml) blood in sodium heparin (green top) tube (LITHIUM HEPARIN IS NOT ACCEPTABLE.) Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Ambient 48 hrs.	http://www.mayomedicallaboratories. com/it- mmfiles/CMVImmuneCompPtInfo.pdf
LAB5744 (RLTO)		Hemolytic Anemia Evaluation	Мауо	SAMPLE MUST BE RECEIVED BY PERFORMING LAB WITHIN 72 HRS OF COLLECTION NOTIFY REFERRAL TESTING Collect 2-5ml (Min: 2 tubes- 3ml) blood in EDTA (lavender top) tube and 2-6ml (Min: 2 tubes- 5ml) blood in ACD (yellow top) tube. Normal Control needed (3 ml blood in EDTA(lavender top) tube). Blood smears (2) to be obtained by Referral Testing. Refrigerate whole blood.	
LAB5744 (RLTO)	HEV RNA	Hepatitis E Virus RNA Detection and Quantification by RT-PCR, serum	Mayo	Collect 3.6 (Min: 1.8 ml) blood in gold top (SST) tube. Spin within 6 hours of collection and freeze 1.2 ml (Min: 0.6 ml) in mailout tube. Refrigerate 5d\Frozen 365d	
LAB5744 (RLTO)		Intact Fibroblast Growth Factor 23, serum	Mayo	Collect 1.5 ml (Min: 0.75ml) blood in serum gel or red top tube. Spin and refrigerate 0.5 (Min: 0.25ml) serum in mailout tube. Refrigerate 14d\Frozen 90d	Synonym: Fibroblast Growth Factor Note: There is an option to send plasma to LabCorp, so do not reject Lavender (EDTA) – spin and refrigerate plasma w/in 1 hour of collection in mail-out tube

Epic Order Code	Mnemonic/Gene Name	Test Name	Lab	Specimen Requirement	Notes/Comments
LAB5744 (RLTO)		Iodine/Creatinine Ratio, Random Urine	Мауо	Collect 10m random urine (Min: 0.5 ml) in random urine container. Refrigerate urine in mailout bottle. Refrigerate 30d\Frozen 30d\Ambient 30d	
LAB5744 (RLTO)		Ketamine and Metabolite Confirmation, urine	Mayo	Collect 20 ml random urine, Pour 20 ml (Min: 5ml) urine into 60 ml urine mailout container and refrigerate. Refrigerate 14d\Frozen 14d\Ambient 72hr	
LAB5744 (RLTO)		Macroprolactin (Total and Unprecipitated)	Mayo	Collect 3 ml (Min: 2.4 ml) blood in serum gel (gold top) tube or red top tube. Spin and Refrigerate 1 ml (Min: 0.6 ml) serum.  Refrigerate 14 days\Frozen 180 days\Ambient NO	
LAB5744 (RLTO)		Neurofilament Light Chain, Plasma	Mayo	Draw 3-5 mL blood in Lavender Top (EDTA). Spin and aliquot plasma into a mail-out tube. Frozen (preferred) 90 days/Refrigerated 7 days	
LAB5744 (RLTO)		Oxalate, plasma	Mayo	**Patient must be fasting for at least 12 hrs and avoid taking vitamin C supplements for 24hrs prior to draw** Collect 15ml (Min: 6ml) blood in sodium heparin (green top) tube, place immediately on wet ice. Centrifuge for 10 min at 3500 RPM in refrigerated centrifuge within 1hr of collection. Adjust the pH of the plasma to 2.3-2.7 with ~ 10 mcl 12M HCL or ~20 mcl of 6M H30, located in Special Heme. (Approximately 10mcl/1ml plasma). Freeze in 5ml (Min: 2ml) plasma in mailout tube. Frozen 30d	
LAB5744 (RLTO)	PTH-FNA	Parathyroid Hormone, Fine-Needle Aspiration Biopsy-Needle Wash	Мауо	CALL REFERRAL TESTING AT 984-974-1414 for assistance with collection instructions or click on test name to access hyperlink (click on "Specimen" tab to acess collection instructions). Min. Vol: 0.5 mL Freeze collection container. Frozen 30d\ Refrigerate 4 hrs	
LAB5744 (RLTO)		Relative B-Cell Subset Analysis Percentage	Мауо	SAMPLE CAN ONLY BE COLLCTED MON-FRI until 3pm. MUST BE RECEIVED BY PERFORMING LAB WITHIN 48 HOURS OF COLLECTION. Collect 10 ml (Min: 5ml, Infant 3ml) blood in EDTA (lavender top) tube. NOTIFY REFERRAL TESTING. Refrigerate whole blood. Refrigerate 48hrs.	
LAB5744 (RLTO)		Sedative Hypnotic Panel, Urine	Mayo	Collect 10 ml (Min: 5 ml) urine in random container. Refrigerate 10ml (Min: 5 ml) in urine mailout bottle. Refrigerate 14d\Frozen 365d\Ambient 72hrs	
LAB5744 (RLTO)	TREC	T-Cell Receptor Excision Circles (TREC) Analysis, Blood	Мауо	Must be collected M-Th; 10am-2pm. <b>NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 48HRS OF COLLECTION.</b> *No not use butterfly needle* Collect 10ml (Adult), 5ml (>1 yr), 3ml ( =1yr) blood in EDTA (lavender top) tube. Must complete patient information sheet. (See link in Notes/Comments) Keep whole blood <b AMBIENT, place in Referral Testing Box under Processing Hood. Ambient 48hrs	http://www.mayomedicallaboratories. com/it-mmfiles/TRECAssayPtInfo.pdf

Epic Order Code	Mnemonic/Gene Name	Test Name	Lab	Specimen Requirement	Notes/Comments
LAB5744 (RLTO)	T-Cell Phenotyping	T-Cell Subsets, Naïve, Memory and Activated	Мауо	Must be collected M-Th; 10am-2pm. <b>NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 48 HRS OF COLLECTION</b> Collect 3ml (Min: 1ml) blood in EDTA (lavender top) tube. Keep whole blood <b>AMBIENT</b> , place in Referral Testing Box under Processing Hood. Ambient 48hrs	
LAB5744 (RLTO)	CLN1 Enzyme/NCL Enzyme/ CLN2 Enzyme	Tripeptidyl Peptidase 1 (TPP1) and Palmitoyl-Protein Thioesterase 1 (PPT1), Leukocytes	Мауо	Must be collected M-Th only and not the day before a holiday.  **NOTIFY REFERRAL TESTING** Collect 7 ml (Min: 5 ml) blood in ACD (yellow top) tube. Refrigerate whole blood. Refrigerate 72hrs	
LAB5744 (RLTO)	Schistosomiasis	Schistosoma species Antibody, IgG, Serum	Mayo	Collect 3 ml (Min: 1.5) blood in a plain, red-top tube(s). (Serum gel tube is acceptable) Spin and Refrigerate 1 mL (Min: 0.5 ml) serum.  Refrigerate 30 d\Frozen 30 d	
LAB5744 (RLTO)	TCR VB	TCR V beta Repertoire	Мауо	Must be collected M-Th; 8am-2pm. NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 48HRS OF COLLECTION Collect 10 ml (Peds: 3ml, <1yr: 1mL) blood in EDTA (lavender top) tube. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Requisition link located in Notes/Comments.	http://www.mayomedicallaboratories. com/it- mmfiles/TCR V beta Spectratyping A ssay Patient Information.pdf
LAB5744 (RLTO)	Galactomannan, CSF	Platelia Aspergillus Antigen EIA, CSF	Miravista via Mayo	**Processed by Microbiology processing** <u>CSF</u> : Collect 2 ml (Min: 0.8 ml) CSF in sterile tube and Freeze.  Frozen 5months\Refrigerate 5d\Ambient 48hrs	
LAB5910 (MDNA)	Mayzent	Cytochrome P4502C9 Genotyping Siponimod	Monogram Biosciences via LabCorp	Collect 7ml (Min: 3ml) blood in EDTA (lavender top) tube. (ACD tube is also acceptable.) Refirgerate whole blood. **Patient consent required for testing**	
LAB5744 (RLTO)	DNA Tropism	DNA Tropism Assay	Monogram Biosciences via LabCorp	Collect 6 ml (Min: 4 ml) blood in EDTA (lavender top) tube. Freeze whole blood in collection tube. Frozen only	
LAB5744 (RLTO)	GS Archive to LabCorp	GenoSure Archive	Monogram Biosciences via LabCorp	Collect 4mls blood in EDTA (lavender top) tube. Freeze EDTA in original collection container as whole blood. <b>DO NOT CENTRIFUGE.</b>	
LAB5744 (RLTO)		HIV Trofile DNA (Trophile)	Monogram Biosciences via LabCorp	Collect 4mls blood in EDTA (lavender top) tube. Freeze EDTA in original collection container as whole blood. <b>DO NOT CENTRIFUGE.</b>	
LAB5744 (RLTO)	BER1	Beryllium Lymphocyte Proliferation	National Jewish	Can only be collected 10 am- 2 pm. MUST BE RECEIVED BY LAB <24 hrs of collection. NOTIFY REFERRAL TESTING Collect 30 ml blood in Sodium Heparin (Green Top) tube. Keep AMBIENT, place in Referral Testing Box under Processing Hood.	

Epic Order Code	Mnemonic/Gene Name	Test Name	Lab	Specimen Requirement	Notes/Comments
LAB5744 (RLTO)		Prion Markers (RT-QuIC, 14-3-3 and total tau)	National Prion Disease Pathology Surveillance Center, Case Western Reserve University	Collect CSF and put on dry ice after collection. (Call Referral Testing at 984-974-1414 to obtain dry ice.) **History form required to be filled out by physician, see link to requistion in Notes/Comments section** Freeze CSF in collection container.	https://case.edu/medicine/pathology/ sites/case.edu.pathology/files/2018- 06/NPDPSC Test Request Form 0305 2018.pdf
LAB5744 (RLTO)		TB T-Spot	Quest Diagnostics	SAMPLE CAN ONLY BE COLLCTED MON-FRI, 8:00-2:30pm. Collect 12ml blood (6 ml if <10 yrs old, 2ml if <2yrs old) in Sodium Heparin (green top ) tube. (Lithium heparin is also acceptable). NOTIFY REFERRAL TESTING. Whole blood MUST BE KEPT AMBIENT, place sample in Referral Testing Box under Processing Hood.	
LAB5744	FTA	Treponema pallidum antibody, IFA	Quest Via Mayo	Collect 1 ML (Min: 0.1 ml) CSF. Refrigerate in mailout tube.	
(RLTO)	Sulfatide	(CSF) Sulfatide, urine	Thomas Jefferson	Refrigerate 14d\Frozen 30d\Ambient OK Collect 10ml (Min: 5 ml) urine from first morning void. Pour into urine mailout container and freeze.	
(RLTO)  LAB5910 (MDNA)	• NF1 • NF2 • SPRED1	Neurofibromatosis Type 1     Neurofibromatosis Type 2     Neurofibramatosis Type 1-like or Legius Syndrome	UAB	MUST BE RECEIVED WITHIN 60 HRS OF COLLECTION. NOTIFY REFERRAL TESTING. Collect 3 (Min: 3 ml) EDTA (lavender top) tubes. Whole blood MUST BE KEPT AMBIENT, place sample in Referral Testing Box under Processing Hood. **Checklist and informed consent required for testing. Please see link in Notes/comments.	https://www.uab.edu/medicine/genetics/images/NF1 SPRED1 and Noonan Related Disorders Test Requisition Form.pdf
LAB5744 (RLTO)		Endothelial Cell Crossmatch/Anti- angiotensin type 1 receptor (AT1R) antibodies	UCLA Immunogenetics Center	Collect 1 red top tube. Spin and refrigerate serum in mailout tube.	
LAB5744 (RLTO)		MICA Antibody Test	UCLA Immunogenetics Center	Collect 10ml (Min: 5ml) blood in red top tube. (Serum gel is <b>NOT</b> acceptable.) Spin and refrigerate 5ml (Min: 3ml) serum in mailout tube. Refrigerate/Ambient	
LAB5910 (MDNA)		Afirma Thyroid FNA Analysis	Veracyte	CALL REFERRAL TESTING AT 984-974-1414 for assistance with collection instructions. Freeze FNA collect tube. Ambient 48hrs\Refrigerate 72hrs\Frozen Indefinitely	
LAB5910 (MDNA)	RBC Chimerism	Erythroid Chimerism	Versiti	NOTIFY REFERRAL TESTING. MUST ARRIVE AT PERFORMING LAB WITHIN 48HRS OF COLLECTION. Collect 10 ml (Min: 1ml) blood in EDTA (lavender top) tube OR 3-5 ml bone marrow in EDTA. Keep whole blood AMBIENT, place in Referral Testing Box under Processing Hood. Ambient 48hrs	
LAB5744 (RLTO)	NAIT/NATP	Neonatal Alloimmune Thrombocytopenia	Versiti	Mother: Collect 20-30 ml blood in ACD (yellow top tube) AND 10-30 ml blood in SST (gold top) tube. Refrigerate ACD whole blood. Spin and refrigerate 3-10 ml serum in mailout tubes.  Father: Collect 20-30 ml blood in ACD (yellow top tube). Refrigerate ACD whole blood. Refrig 4d	
LAB5744 (RLTO)		Platelet Antigen Genotyping	Versiti	Collect 2-5 ml blood in EDTA (lavender top) tubes. Refrigerate whole blood. Ambient 7d\Refrig 14d	

Epic Order Code	Mnemonic/Gene Name	Test Name	Lab	Specimen Requirement	Notes/Comments
LAB5744 (RLTO)	РТР	Post Transfusion Purpura	Versiti	Collect 5-10 ml blood in EDTA (lavender top) tube AND 10-30 ml blood in SST (gold top) tube. Refrigerate EDTA whole blood. Spin and refrigerate 3-10 ml serum in mailout tube. Refrig 7d	
LAB5744 (RLTO)	Super Coombs	DAT Negative Hemolytic Anemia Evaluation	Versiti	NOTIFY REFERRAL TESTING Collect 3 red top tubes (7ml each) and 4 (3ml each) EDTA (Lavender top) tubes of blood. Refrigerate whole blood. Refrigerate 7d	
LAB5744 (RLTO)		Drug Dependent Platelet Antibody	Versiti	Collect 10 ml (Min: 3ml) blood in SST tube. Spin and refrigerate 5 ml (Min: 1ml) serum in mailout tube. Refrig 7d\Frozen 14d	
LAB5744 (RLTO)		NS-6S IgM	Washington University Neuromuscular Disease Laboratory via Mayo	Collect 9ml blood in Red Top tube (Serum Gel is acceptable.) Spin and refrigerate 3ml (Min: 3ml) serum in mailout tube. Ambient 30d\Refrigerate OK\Frozen OK	
LAB5744 (RLTO)		NT5C1A IgG Antibody	Washington University Neuromuscular Disease Laboratory via Mayo	Draw 15ml (Min: 9ml) blood in red top tube. Spin and refrigerate 5ml (Min: 3ml) in mailout tube. Ambient 30d\Frozen Yes\Refrigerate Yes	http://neuromuscular.wustl.edu/lab/reqs/SerumRequisition.pdf
		Celiac Reflex Panel (Celiac Sprue)		Please call ordering physician. No such panel available. Must specify individual tests desired.	
		Folate receptor antibody, serum		Testing not available	
LAB5910 (MDNA)		JC Virus DNA, Ultrasensitive, Quantitative, Real-Time PCR, CSF		1.2 mL frozen CSF collected in a sterile, leak-proof container.	