

Analyte	Unspun Blood Room Temperature 20-25°C	Post-Processing			Special Handling/Notes
		20-25°C	2-8°C	-20°C	
Alpha 1-fetoprotein (AFP)	7 d	5 d	14 d	6 m	
Alpha 1-Antitrypsin (A1AT)	11 d	7 d	3 m	3 m	
Acetaminophen	1 d	1 d	7 d	6 m	
Albumin	6 d	10 w	5 m	4 m	
Alkaline Phosphatase	4 d	7 d	7 d	2 m	
ALT	4 d	3 d	7 d	7 d	
Ammonia	15 min in EDTA	15 min	2 h	3 w	30 min unspun on ice; freeze sample if not analyzed immediately
Amylase	4 d	7 d	1 m	1 y	
ANA Ab Screen	2 h	1 d	14 d	1 y	
Anti-Mullerian Hormone (AMH)	2 h	3 d	7 d	24 w	
AST	7 d	4 d	7 d	3 m	
Beta-2- Microglobulin (B2MG)	1 d	3 d	3 d	6 m	
Beta-2-Glycoprotein IgG/IgM	2 h	2 d	14 d	1 y	
Bicarbonate (CO2)	6 h, if unopened	1 d*	7 d*	14 d*	*If tube has never been uncapped; 2.5 hours if uncapped (internal study)
Bilirubin, direct	4 h (protected from light)/2 h (not protected)	1 d*	7 d*	6 m*	Darkness required when stored > 24 hr, cannot add-on after 24 hours of being brought "in-lab", * only when stored protected from light
Bilirubin, total	4 h (protected from light)/2 h (not protected)	1 d*	7 d*	6 m*	Darkness required when stored > 24 hr, cannot add-on after 24 hours of being brought "in-lab", * only when stored protected from light
BOHB	1 d	2 h	7 d	7 d	
BUN	1 d	7 d	7 d	1 y	
C3	1 d	4 d	8 d	8 d	
C4	1 d	2 d	8 d	3 m	
CH50	6 h	6 h	2 d	28 d	Freeze sample if not analyzed immediately
Calcium (total)	2 d	7 d	3 w	8 m	
Calcium, Ionized (Serum Only)	6 h	3 d	3 d	N/A	Spun gold top tube only, reject tubes that are less than 3/4 full. Cannot uncap sample until immediately before analysis

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Cancer Antigen 15-3 (CA15-3)	12 h	2 d	5 d	3 m	
Carbamazepine	2 d	5 d	7 d	1 m	
Carbohydrate Antigen 19-9 (CA19-9)	7 d	5 d	14 d	3 m	
Carbohydrate Antigen 125 (CA125)	2 d	8 h	5 d	24 w	
Cardiolipin IgG/IgM	2 h	2 d	14 d	1 y	
Cyclic Citrullinated Peptide (anti-CCP)	22 h	3 d	8 d	12 m	
CEA	7 d	7 d	14 d	6 m	No more than three freeze/thaws (Roche)
Ceruloplasmin	6 h	8 d	14 d	1 y	
Chloride (Cl-)	1 d	7 d	7 d	1 y	
Cholesterol	7 d	7 d	7 d	3 m	
CK	7d	2 d	7 d	4 w	
CMV IgG	2 h	2 d	2 w	1 y	
CMV IgM	2 h	2 d	2 w	1 y	
Co-ox Panel (Na Hep Vacutainer)	See Procedure	N/A	See Procedure	N/A	Offsite: see procedure or BGAS stability chart; run immediately upon receipt and report out only stable tests
Cortisol	7 d	7 d	7 d	1 y	Freeze only once (Roche)
C-Peptide	6 h	5 h	5 d	2 m	
Creatinine	2 d	7 d	7 d	3 m	
Cryoglobulin or Cryofibrinogen	1.AFTER DRAWING BLOOD, PLACE TUBE ON WARM (37° C) INFANT HEEL WARMER (PeopleSoft # 0036214) 2.DELIVER TO THE LABORATORY IMMEDIATELY (within 30 minutes of collection). 3.Sample must be received in the Laboratory wrapped in an infant heel warmer.	1 w	1 w	N/A	1.AFTER DRAWING BLOOD, PLACE TUBE ON WARM (37° C) INFANT HEEL WARMER (PeopleSoft # 0036214) 2.DELIVER TO THE LABORATORY IMMEDIATELY (within 30 minutes of collection). 3.Sample must be received in the Laboratory wrapped in an infant heel warmer.
Troponin T (cTnT)	2 h	24 h	4 d	12 m	
Cyclosporine	14 d	14 d	14 d	14 d	*Samples are whole blood, do not spin*
Dehydroepiandrosterone sulfate (DHEAS)	1 d	5 d	14 d	12 m	Freeze only once (Roche)
Digoxin	4 h	1 d	1 d	7 d	Freeze sample if not analyzed immediately, label instructions will be "FREEZE FOR TRNSP"
dsDNA	2 h	2 d	14 d	1 m	

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EBV VCA IgG, IgM, EBNA IgG	2 h	2 d	14 d	1 y	Avoid freeze/thaw (ARUP)
ENA Ab Panel	2 h	2 d	14 d	1 y	
Estradiol	1 d	1 d	5 d	1 y	
Ethanol (Alcohol)	2 w	2 w	6 m	6 m	Collect in gray top tube, do not use alcohol wipes. Do not uncap until immediately prior to analysis. Stabilities assume gray top. See Roche insert for gold top stability.
Ethylene Glycol Screen	4 h	3 d	3 d	NA	Collect in gold top tube, do not use alcohol wipes. Do not uncap until immediately prior to analysis
Everolimus	7 d	7 d	14 d	14 d	*Samples are whole blood, do not spin*
Fecal Calprotectin - Raw	1 d	N/A	4 d	1 y	
Fecal Calprotectin - Calex Extract	N/A	4 d	8 d	2 m	
Ferritin	12 h	2 d	7 d	12 m	
Free PSA	2 h	8 h	5 d	12 w	
Free T3	2 h	5 d	7 d	30 d	
Folate	2d	2d	3 d	28 d	
FT4	12 h	5 d	7 d	30 d	
FSH	12 h	5 d	14 d	6m	
Gentamicin	4 h	4 h	7 d	1 m	
GGT	1 d	7 d	7 d	1 y	
Gliadin (deamidated) IgA, IgG	2 h	2 d	14 d	1 y	
Glucose - Grey Top	3 d	3 d	7 d	1 y	
Glucose - Green/Gold/Red Top	1 h	8 h	7 d	1 y	
Haptoglobin	8 d	3 m	8 m	3 m	
Hepatitis A IgM Antibody	2h	7 d	14 d	3 m	
Hepatitis A Total Antibody	2h	6 d	14 d	3 m	No more than 5 freeze/thaws (Roche)
Hepatitis B Core Antibody	2h	7 d	14 d	3 m	
Hepatitis B Core IgM Antibody	2h	1 d	7 d	3 m	
Hepatitis B Surface Antibody (HBsAb)	2h	4 d	6 d	4 m	No more than 6 freeze/thaws (Roche)
Hepatitis B Surface Antigen (HBsAG)	2h	6 d	14 d	6 m	
Hepatitis C Antibody	2h	3 d	21 d	3 m	
HCV Reflex	2 h	N/A	3 d	3 m	

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Hemoglobin A1C	3 d	3 d	7 d	6 m	*Samples are whole blood, do not spin*
HCG	1 d	5 d	14 d	12 m	
HDL	2 d	3 d	7 d	3 m	
Growth Hormone (HGH)	2 h	8 h	1 d	1 m	
Homocysteine	1 h	4 d	4 w	10 m	No more than 1 thaw cycle possible
hsCRP	1 d	11 d	2 m	3 y	
HIV Duo	1 d	7 d	4 w	3 m	No more than five freeze, thaw cycles possible.
HIV Geenius	1 d	2 d	7 d	N/A	
HSV 1&2	2 h	2 d	14 d	1 y	
IgG, IgA, IgM	8 d	2 m	4 m	6 m	
IgG Subclasses	8 d	14 d	14 d	8 m	
IgE	2 h	7 d	2 w	1 y	
IgE, Allergens	2 h	7 d	2 w	1 y	
Immunfixation Electrophoresis (IFE)	2 h	14 d	28 d	28 d	Serum only Only one freeze, thaw cycle possible
Insulin	6 h	4 h	10 d	6 m	
Iron	2 h	7 d	3 w	1 y	
Kappa Free Light Chains	7 d	7 d	21 d	6 m	
Lactate (plasma)	60 min on ice (RT not accepted)	2 h	14 d	1 m	
Lambda Free Light Chains	7 d	7 d	21 d	6 m	
LDH	3 h	8 h	1 d*	N/A	*Based on modification of Roche package insert due to instability of LDH-4 and LDH-5 in certain diseases when refrigerated or frozen
LDL	1 d	1 d	7 d	1 m	
LH	7 d	5 d	14 d	6 m	
Lipase	1 d	7 d	7 d	2 m	
Lithium	4 h	1 d	7 d	6 m	
Lyme Total Ab	2 h	8 h	7 d	3 m	
Lyme IgG	2 h	3 d	14 d	3 m	
Lyme IgM	2 h	3 d	8 d	3 m	
Magnesium	1 d	7 d	7 d	1 y	
Methotrexate	8 hr	8 h	2 w	6 m	
MPO	2 h	2 d	14 d	1 y	

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		20-25°C	2-8°C	-20°C	
Mumps IgG	2 h	2 d	14 d	1 y	
Opioid Conf Panel	3 d	3 d	14 d	28 d	
Osmolality	6 h	1 d	1 w	6 m	
Phenobarbital	2 d	7 d	7 d	1 y	Stability assumes capped
Phenytoin (free)	4 h	4 d*	4 d*	1 m*	*Before filtering, but spun
Phenytoin (total)	2 d	4 d	4 d	1 m	
Phosphorus	1 h	1 d	4 d	1 y	
Potassium (K+)	1 h	2 w	2 w	1 y	
Prealbumin	12 h	3 d	6 m	1 y	
proBNP	2 d	3 d	6 d	24 m	
Progesterone	12 h	1 d	5 d	6 m	
Prolactin	2 d	5 d	14 d	6 m	
Protein Electrophoresis (PEP)	1 d	1 d	7 d	6 m	Serum only Only one freeze, thaw cycle possible
PR3	2 h	2 d	14 d	1 y	
PSA (total)	1 d	7 d	30 d	6 m	Three freeze/thaw cycles possible
PTH (intact)	2 d*	2 d*	3 d*	6 m*	*EDTA only
Quantiferon	16 h	N/A	28 d	N/A	Samples must arrive w/in 16h of collection, must incubate at 37C for 16-24 h
Rheumatoid Factor (RHF)	12 h	1 d	8 d	3 m	Only one freeze/thaw cycle possible
Rubella IgG Antibody	1 d	7 d	3 w	3 mo	
Rubeola (measles) IgG	24 h	2 d	14 d	1 y	
Salicylate	4 h	7 d	2 w	6 m	
Sirolimus (Rapamycin)	14 d	14 d	14 d	14 d	*Samples are whole blood, do not spin*
Sodium (Na+)	4 d	2 w	2 w	1 y	
Syphilis	3 d	7 d	14 d	1 y	
Tacrolimus (FK506)	5 d	5 d	7 d	3 m	*Samples are whole blood, do not spin*
Testosterone	2 h	5 d	14 d	6 m	
Theophylline	4 h	2 d	7 d	2 m	Stability assumes capped
Thyroperoxidase (TPO) Antibody	2 h	8 d	8 d	24 m	
Tobramycin	8 h	8 h	3 d	1 m	Freeze sample if not analyzed immediately, label instructions will be "FREEZE FOR TRNSP"

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		20-25°C	2-8°C	-20°C	
Total Protein	1 d	6 d	4 w	6 m	Plasma results higher due to fibrinogen (Biuret method)
Toxoplasma IgG, IgM	2 h	2 d	14 d	1 y	
Triglyceride	2 d	2 d	10 d	3 m	
TSH	1 d	8 d	14 d	24 m	Freeze only once (Roche)
T3	8 h	8 d	14 d	12 m	
T4	8 h	4 d	8 d	12 m	
T-up	8 h	8 d	14 d	24 m	
Tryptase	2 h	2 d	7 d	6 m	
TTG IgA	2 h	2 d	14 d	1 y	
TTG IgG	2 h	2 d	14 d	1 y	
UIBC	6 h	4 d	7 d	1 y	
Uric Acid	7 d	3 d	7 d	6 m	
Uric Acid (Rasburicase)	N/A	N/A	4 h	N/A	To ensure accurate measurements, blood must be collected into pre-chilled tubes containing heparin anticoagulant and immediately immersed and maintained in an ice bath. Samples must be prepared by centrifugation in a pre-cooled centrifuge (4°C). Finally, the plasma must be maintained in an ice bath and analyzed for uric acid within four hours of collection.
Valproic Acid	4 h	2 d	7 d	3 m	
Vancomycin	2 h	2 d	14 d	12 m	
Vitamin B12	3d	3d	3d	56 d	
Vitamin D	8 h	3 d	1 w	6 m	
Volatile Alcohol Screen (Methanol, Acetone, Ethanol, and Isopropanol)	4 h	3 d	3 d	NA	Collect in gold top tube, do not use alcohol wipes. Do not uncup until immediately prior to analysis
VZV IgG	2 h	2 d	14 d	1 y	

Urine Stability Chart				
Analytes	20-25°C	2-8°C	-20°C	Special Handling/Notes
Calcium	2 d	4 d	3 w	Samples need to be pH adjusted to ≤ 3
Chloride	7 d	7 d	1 y	
Creatinine	2 d	6 d	6 m	Urine: Collect urine without using additives. If urine must be collected with a preservative for other analytes, only hydrochloric acid (14 to 47 mmol/L urine, e.g. 5 mL 10 % HCl or 5 mL 30 % HCl per liter urine) or boric acid (81 mmol/L, e.g. 5 g per liter urine) may be used.
Drug of Abuse (DAU)	7 d	28 d	28 d	
Immunofixation Electrophoresis	1 d	7 d	6 m	Only one freeze, thaw cycle possible
Magnesium	3 d	3 d	1 y	Samples need to be pH adjusted to ≤ 1
Microalbumin/Albumin	7 d	1 m	6 m	
Opioid Conf Panel	3 d	14 d	28 d	
Osmolality	3 h	7 d	3 m	
Phosphorus	7 d	14 d	30 d	Samples need to be pH adjusted to ≤ 3
Potassium	14 d	14 d	1 y	
Protein Electrophoresis	1 d	7 d	6 m	Only one freeze, thaw cycle possible
Sodium	14 d	14 d	1 y	
Total Protein	1 d	7 d	1 m	
Urea	2 d	7 d	1m	
Uric Acid	4 h	14 d	30 d	Samples need to be pH adjusted to ≥ 8
CSF Stability Chart				
Analytes	20-25°C	2-8°C	-20°C	Special Handling/Notes
AFP	3 d	14 d	1 y	
Glucose	5 h	3 d	1 m	Stability depends on cell content.

hCG	5 d	14 d	1 y	
LDH	7 d	4 d	6 w	
L-Lactate	3 h	1 d	2 m	Stability depends on cell content.
Total Protein	1 d	6 d	1 y	Stability depends on cell content.
Miscellaneous Stability Chart				
Analytes	20-25°C	2-8°C	-20°C	Special Handling/Notes
Body Fluid pH	1 d	7 d	7 d	
Duodenal Bicarb	1 d	2 d	NA	
Sweat Chloride	3 d	3 d	NA	
Stool Osmo	48 h	7 d	14 d	

Blood Gas Stability Chart			
Analytes	20-25°C	2-8°C	Special Handling/Notes
pH	1 h	3 h	
pCO2	1 h	3h	
pO2	40 min	20 min	Cannot be reported on EDTA tube (coox)
HCO3	90 min	N/A	
HGB	28 d	28 d	
O2HB	45 min	40 min	
COHB	28 d	28 d	
METHB	3 h	3 h	
Na	1 w	N/A	
K	1 h	N/A	
iCa	30 min	1 d	Whole Blood; See serum chart for serum
Cl	1 d	N/A	
Gluc	1 h	N/A	
Lact	40 min	3 h	