

Biochemistry: Routine sample requirements guide

**This document is an update on V1, published in Nov 2022. For details of the key update, please see hsTroponin I on page 5*

Please remember to write the time of collection of the samples and request form

TEST NAME	SAMPLE TYPE	
	Serum SST	
	Serum/Clot Activator	
	EDTA	
	Li Heparin	
	Na Flouride	
GENERAL CHEMISTRY	SERUM/PLASMA	SPECIAL CONDITIONS, collection instructions or and useful notes
SODIUM	 	
POTASSIUM	 	
CHLORIDE	  	
UREA	  	
ALKALINE PHOSPHATASE	 	
ALANINE AMINOTRANSFERASE	 	
ASPARTATE AMINOTRANSFERASE	 	
AMYLASE	 	
CALCIUM	 	
PHOSPHATE	 	
CREATININE	 	This is now an enzymatic method (ECREAT).
GAMMA GLUTAMYL TRANSFERASE	  	
CREATINE KINASE	 	

CHOLESTEROL		
HDL CHOLESTEROL		
TRIGLYCERIDE		
IRON		
LACTATE DEHYDROGENASE		
MAGNESIUM		
TOTAL PROTEIN		
C-REACTIVE PROTEIN		
URIC ACID		
GLUCOSE		
TIBC		This was previously a calculation by addition of IRON and UIBC. UIBC has been discontinued.
BICARBONATE		
AMMONIA		
ALBUMIN		
TBIL		
Bu Unconjugated Bilirubin		
Bc Conjugated Bilirubin		
RHEUMATOID FACTOR		
HOMOCYSTEINE		
URINE CHEMISTRY		
All samples must be centrifuged and the supernatant removed from sediment unless they are clear and do not contain any floating bits		
SODIUM	PLAIN Urine	Keep urine specimens refrigerated until they are sent to the laboratory
POTASSIUM		
UREA		
AMYLASE		

GLUCOSE	PLAIN Urine	Special Precautions for urine protein samples Blood-stained urines may not be suitable for analysis. Haemoglobin is a protein and its presence in urine results in an increase in measured protein.
CREATININE		
MICROALBUMIN		
PROTEIN		
URIC ACID	ALKALINE Urine	
PHOSPHATE	ACID or PLAIN Urine	
CALCIUM	Urine	
MAGNESIUM	ACID Urine	
CSF CHEMISTRY		
TOTAL PROTEIN	CSF Fluid	
GLUCOSE	CSF Fluid	A Fluoride oxalate sample preferred but a plain sample is acceptable but must be sent to the labi immediately for analysis within 1hr of collection
LDH	CSF Fluid	
THERAPEUTIC DRUGS		
		Optimal sampling time
AMIKACIN		Please indicate if pre or post dose
GENTAMICIN		Please indicate if pre or post dose
LITHIUM		At least 12 hours after previous dose.
PHENYTOIN		Trough level immediately before next dose
DIGOXIN		Ideally trough sample taken immediately before next dose. Sample must be at least 6 h (preferably 8 h) after an oral dose and 4 to 6 h after an intravenous dose.
VANCOMYCIN		Please indicate if pre or post dose
VALPROIC ACID		Serum concentrations are only useful for compliance, so sample timing not important
CARBAMAZEPINE		Trough level immediately before next dose
IMMUNOASSAYS		
FSH		

LH		
TESTOSTERONE		
PROLACTIN		This is currently a referral test
PROGESTERONE		
ESTRADIOL		
25-OH VITAMIN D (Total)		
βHCG		
TOTAL PSA		
FREE PSA		
CORTISOL		
VITAMIN B12		
FERRITIN		
FOLATE SERUM		
FOLATE RBC		
TSH		
FT4		
FT3		
CA125		
CA153		
CA199		
AFP		
CEA		

iPTH		
INSULIN		
hsTROPONIN I		*Due to interference found when other sample types are used. The green top (Li Heparain) is the sample of choice
NT-pro BNP		This replaces BNP and is done on a serum sample.
FLUIDS CHEMISTRY		
POTASSIUM	PLAIN Fluid (fresh)	Fluid Glucose in a Fluoride oxalate container is acceptable.
SODIUM		
UREA		
AMYLASE		
CREATININE		
CHOLESTEROL		
TRIGLYCERIDE		
LDH		
TOTAL PROTEIN		
URIC ACID		
GLUCOSE		
ALBUMIN		
TOTAL BILIRRUBIN		