Clinical Tests Reference Ranges

Items		Reference ranges Male	Reference ranges Female	Units	Test Equipment and Analysis Method		Mesurement Facility
Biochemistry							
Protein,Total		6.7–8.3		g/dL		Biuret method	
Albumin		3.8–5.2		g/dL		Improved BCP method	
Albumin/Globulin Ratio		1.1–2.0					
Asparate aminotransferase		10–40		U/L		JSCC standardised method	
Alanine aminotransferase		5–45		U/L		JSCC standardised method	
Lactate dehydrogenase		124–222		U/L		IFCC standardised method	
Bilirubin,Total		0.2–1.2		mg/dL		Enzymatic assay	
Bilirubin,Direct		0.0–0.2		mg/dL		Enzymatic assay	
Alkaline phosphatase		38–113		U/L		IFCC standardised method	
γ–Glutamyltransferase		≦80	≦30	U/L		JSCC standardised method	
Leucine aminopeptidase		45–81	37–61	U/L		L–leusyl–p–nitroanilid method	
Cholinesterase		234–493	200–452	U/L		JSCC standardised method	
Creatine kinase		60–270	40–150	U/L		JSCC standardised method	
Amylase		40–122		U/L	Beckman Coulter, Inc. AU5800	Enzymatic assay	
Blood urea nitrogen		8.0–20.0		mg/dL		Urease–GIDH method	
Creatinine		0.61–1.04	0.47–0.79	mg/dL		Enzymatic assay	
Uric acid		3.8–7.0	2.5–7.0	mg/dL		Enzymatic assay	
Sodium		137–147		mEq/L		ISE(Ion Selective Electorode)	
Chloride		98–108		mEq/L		ISE(Ion Selective Electorode)	
Potassium		3.5–5.0		mEq/L		ISE(Ion Selective Electorode)	
Calcium		8.4–10.4		mg/dL		Arsenazo III method	
Inorganic Phosphate		2.5–4.5		mg/dL		Enzymatic assay	
Magnesium		1.9–2.5		mg/dL		Enzymatic assay	
Cholesterol,Total		120–219		mg/dL		Enzymatic assay	
Cholesterol,LDL		65–139		mg/dL		Enzymatic assay (Direct method)	
Cholesterol,HDL		40–85	40–95	mg/dL		Enzymatic assay (Direct method)	
Triglyceride(s)		30–149		mg/dL		Enzymatic assay(Free glycerol remove method)	
Glucose		70–109		mg/dL		Enzymatic assay	
C–Reactive protein		≦0.30		mg/dL		Latex agglutination nephelometry	
Bilirubin,Indirect		0.2–1.0		mg/dL			
HCO3–		22.6–31.4		mmol/L		Enzymatic assay	
Hematology							
White blood cell count		3300– 9000		/μL	Sysmex Corporation XN–1000	Flow Cytometry method	SUMIDA HOSPITAL
Red blood cell count		430– 570	380– 500	×10⁴/μL		DC detection method	
Hemoglobin		13.5–17.5	11.5–15.0	g/dL		SLS–Hb method	
Hematocrit		39.7– 52.4	34.8– 45.0	%		DC detection method	
Mean corpuscular volume		85–102		fL			
Mean corpuscular hemoglobin		28.0– 34.0		pg			
Mean corpuscular hemoglobin concentration		30.2–35.1		%			
Platelet count		14.0–34.0		×10⁴/μL		DC detection method	
Reticulocytes		4–19		‰		Flow Cytometry method	
Differential white blood cell count	Neutrophils	40.0–75.0		%		Flow Cytometry method	
	Lymphocytes	18.0–49.0		%			
	Monocytes	2.0–10.0		%			
	Eosinophils	0.0–8.0		%			
	Basophils	0.0–2.0		%			
Urinalysis							
Color					Eye sight		
Specific gravity		1.006–1.030			Refractometer method		
pH		5.0–7.5			Siemens Healthcare Diagnostics Corporation Clinitek Advantus	Testing paper	
Glucose		(–)					
Protein		(–)					
Occult blood		(–)					
Ketone bodies		(–)					
Bilirubin		(–)					
Urobilinogen		(+–)					
Nitrite		(–)					
Leukocytes		(–)					
Turbidity					Eye sight		
Sedimentary test,Erythrocytes				/HPF	Microscopic		
Sedimentary test,Leukocytes				/HPF			
Sedimentary test, Squamous epithelial cells				/HPF			
Drug testing,Urine		(–)			Gold colloids particle immunoassay		
Methadone test		(–)			Immuno–chromatography		
Pregnancy test					Immuno–chromatography		
Cotinine test		(–)			Immuno–chromatography		
Others							
Breath alcohol test		0.00		mg/L	Semiconductor sensor		
Occult blood,Fecal		(–)			Immuno–chromatography		
Coaglation tests							
Prothrombin time;seconds		9.4–12.5		sec	IL JAPAN Corporation ACL TOP300	Coagulometoric mesurements	
Prothrombin time;Activity		70–100		%			
Prothrombin time;INR		0.85–1.15					
Activated partial thromboplastin time		25.0–36.0		sec			
Fibrinogen		155–415		mg/dL		clotting method adding thrombin	
Immunology							
SARS–CoV2		Negative			Tosoh Corporation TRCReady–80	TRC	

Effective Date 13 Sep. 2024

SOUSEIKAI SUMIDA HOSPITAL