



BML508704

Laboratory Investigation Report

Name	: Mr. HANI ADEL AKIL	Ref No.	: 45425
DOB	: 08/06/1998	Sample No.	: 2501521100
Age / Gender	: 26 Y / Male	Collected	: 04/01/2025 12:35
Referred by	: DR ENOMEN	Registered	: 04/01/2025 15:40
Centre	: CITICARE MEDICAL CENTER	Reported	: 04/01/2025 17:25

BIOCHEMISTRY

Test	Result	Flag	Unit	Reference Range	Methodology
CALCIUM	9.8		mg/dL	8.6 - 10.0 Please note change. Source: Roche IFU.	NM-BAPTA

INTERPRETATION NOTES :

Increased level is seen in Hyperparathyroidism, Infections that cause granulomas such as tuberculosis and certain fungal and mycobacterial infections, Multiple myeloma, T cell lymphoma and certain other cancers, Metastatic bone tumor, Paget disease, Use of certain medicines such as lithium, tamoxifen, and thiazides.

Decreased level is seen in Kidney failure, Low blood level of albumin, Liver disease, Magnesium deficiency, Pancreatitis, Vitamin D deficiency

Dr. Adley Mark Fernandes
M.D (Pathology)
Pathologist

Vyoma V. Shah
Dr. Vyoma V Shah
M.D (Pathology)
Clinical Pathologist

Haleem Hakkim
HALEEM HAKKIM
Laboratory Technician
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BIOCHEMISTRY

Test	Result	Flag	Unit	Reference Range	Methodology
LIVER FUNCTION TEST					
ALT / SGPT	13		U/L	< or = 50 Please note change. Source: Roche IFU.	IFCC
AST / SGOT	30		U/L	< or = 50 Please note change. Source: Roche IFU.	IFCC
ALP (ALKALINE PHOSPHATASE)	99		U/L	40 - 129 Please note change. Source: Roche IFU.	Colorimetric assay
GGT (GAMMA GLUTAMYL TRANSFERASE)	10		U/L	10 - 71 Please note change. Source: Roche IFU.	Enzymatic colorimetric assay
BILIRUBIN (TOTAL)	0.5		mg/dL	0 - 1.2 Please note change. Source: Roche IFU.	Diazotization
BILIRUBIN (DIRECT)	0.2		mg/dL	0 - 0.2 Please note change. Source: Roche IFU.	Diazotization
INDIRECT BILIRUBIN	0.30		mg/dL	< or = 0.9	Calculated
TOTAL PROTEIN	7.6		g/dL	6.4 - 8.3	Biuret reaction
ALBUMIN (SERUM)	5.1		g/dL	3.5 - 5.2 Please note change. Source: Roche IFU.	Colorimetric assay (Bromocresol Green)
GLOBULIN	2.5		g/dL	2.0 - 3.5	Calculation
A/G RATIO	2.0			0.8 - 2.0	Calculation

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ENDOCRINOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
ESTRADIOL (E2)	14.4		pg/mL	11.3 - 43.2 Please note update. Source: Roche	ECLIA

INTERPRETATION NOTES :

Refer to Interpretation Table for Female Reference Range:

FEMALE	REFERENCE RANGE (pg/mL)
Tanner Stage I (>14 days and prepubertal) (Mean Age: 7.1 years)	Undetectable - 20
Tanner Stage II (Mean Age: 10.5 years)	Undetectable - 24
Tanner Stage III (Mean Age: 11.6 years)	Undetectable - 60
Tanner Stage IV (Mean Age: 12.3 years)	15 - 85
Tanner Stage V (Mean Age: 14.5 years)	15 - 350
Follicular Phase	20.5 - 233
Mid Cycle	60.4 - 602
Luteal Phase	51.1 - 222
First Trimester	154 - 3243
Second Trimester	1561 - 21280
Third Trimester	8525 - > 30000
Post Menopause	< 5
Please note update in reference range. Source: Roche; Mayo Clinic Laboratories for Tanner Stage	

Refer to Interpretation Table for Male Reference Range:

1 to 14 days: Estradiol levels in newborns are very elevated at birth but will fall to prepubertal levels within a few days.

TANNER STAGE MALE	REFERENCE RANGE (pg/mL)
Stage I (>14 days and prepubertal)(Mean Age: 7.1 years)	Undetectable - 13
Stage II (Mean Age: 12.1 years)	Undetectable - 16
Stage III (Mean Age: 13.6 years)	Undetectable - 26
Stage IV (Mean Age: 15.1 years)	Undetectable - 38
Stage V (Mean Age: 18 years)	10 - 40

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ENDOCRINOLOGY

Test	Result	Flag	Unit	Reference Range	Methodology
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Increased level is seen in early puberty, tumors in the ovaries or testes, gynecomastia, hyperthyroidism, cirrhosis of liver.
Decreased level is seen in menopause, Turner syndrome, ovarian failure, polycystic ovarian syndrome (PCOS), depleted estrogen production, which can be caused by low body fat, hypopituitarism, hypogonadism.

TESTOSTERONE (TOTAL)	17.7		nmol/L	8.64 - 29	ECLIA
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Please note change in method and reference range.
Source: Roche IFU.

INTERPRETATION NOTES :

Tanner Stage Interpretation Table (Source:Roche IFU):

Tanner Stage	Reference Ranges (Male)	Reference Ranges (Female)
Tanner Stage I (> 14 days):	Undetectable - 0.087	Undetectable - 0.21
Tanner Stage II (11.5 years):	Undetectable - 14.99	Undetectable - 0.36
Tanner Stage III (13.6 years):	2.25 - 27.00	Undetectable - 0.82
Tanner Stage IV (15.1 years):	6.24 - 26.45	Undetectable - 0.92
Tanner Stage V (18.0 years):	6.51 - 30.50	0.16 - 1.32

High amounts of testosterone in the body can lead to a lower sperm count.

Low testosterone concentrations can be caused by testicular failure (primary hypogonadism) or inadequate stimulation by pituitary gonadotropins (secondary hypogonadism).

Sample Type : Serum

End of Report

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