

**PARTICIPANT FINAL ASSESSMENT REPORT (SUMMARY)**

**PT SCHEME: BIOCHEMISTRY**



PC-1047

Cycle No	C3
Ref.No.	NEUQAP109
Sample ID	NEUQAP BIO SERUM/2021/7/C3/S7

Report Date : 10/08/2021

Sample : JUL 2021

All Methods

	Parameters	Labs (n)	Lab Value	Unit	Assigned value	SDPA	Um	Z-Score	Remarks
1	ALT	34	11.00	U/L	24.01	1.86	0.400	6.98	Unsatisfactory
2	SODIUM	19	114.90	mmol/L	141.33	6.54	1.876	4.04	Unsatisfactory
3	HDL-CHOL	18	85.00	mg/dL	50.43	4.84	1.426	7.14	Unsatisfactory
4	GGTP	21	24.00	U/L	60.37	4.90	1.336	7.43	Unsatisfactory
5	Alkaline Phosphatase	21	35.00	U/L	59.01	4.32	1.179	5.56	Unsatisfactory
6	CHOLESTEROL	29	89.00	mg/dL	101.21	6.02	1.396	2.03	Questionable
7	GLUCOSE	38	108.00	mg/dL	117.46	4.89	0.991	1.94	Satisfactory
8	UREA	33	15.50	mg/dL	18.51	1.84	0.401	1.64	Satisfactory
9	TOTAL PROTEIN	31	4.00	g/dL	3.81	0.19	0.042	1.03	Satisfactory
10	POTASSIUM	27	1.93	mmol/L	2.36	0.23	0.055	1.87	Satisfactory
11	CHLORIDE	10	37.70	mmol/L	44.97	6.30		1.15	Satisfactory
12	CALCIUM	28	3.70	mg/dL	4.42	0.42	0.099	1.71	Satisfactory
13	Direct Bilirubin	27	0.10	mg/dL	0.35	0.13	0.032	1.85	Satisfactory
14	TRIGLYCERIDES	30	75.00	mg/dL	69.86	5.51	1.258	0.93	Good
15	CREATININE	41	0.93	mg/dL	1.04	0.12	0.023	0.98	Good
16	AST	41	29.00	U/L	31.82	3.48	0.679	0.81	Good
17	BILIRUBIN	30	0.70	mg/dL	0.65	0.12	0.028	0.44	Good
18	ALBUMIN	33	3.90	g/dL	3.80	0.36	0.079	0.29	Good
19	URIC ACID	31	1.40	mg/dL	1.49	0.14	0.030	0.69	Good

Authorised Signatory

Dr. Sujay Prasad  
Technical Manager and Program coordinator

\* denotes adjusted SDPA as per ISO 13528:2015(E)  
SDPA - Standard Deviation for Proficiency Assessment

This report is for use only by the intended participant.




## RCA FORM OF ILC / PT / EQAS OUTLIERS

Department: BIOCHEMISTRYDate: 31/08/2021

1. Proficiency test exception for: ALT, GGT, Sodium, HDL, ALP, Cholesterol, T<sub>3</sub>
2. Proficiency test provider: NeuQAP
3. Proficiency test analyte group: -
4. Cause for PT exception:
  - ① All parameters passed in peer group except sodium and creatinine
5. How did the section investigate the cause:
  - ② This is the first PT analysis with NeuQAP as per NABL M(CE)T program.
6. What was the status of the internal QC on the day PT initially analysed: Passed
7. Category into which the cause will fit into:
  - A. Method
  - B. Technical
  - C. Clerical
  - D. Problem with PT material Other
  - ③ E. No explanation after investigation
  - ③ The earlier PT provider BIORAD - PT analysis was satisfactory & reports of this have been attached
  - ④ PT with NeuQAP under observation
8. Evidence that the problem was corrected successfully:
  - ⑤ Interlab comparison satisfactory. Reports attached
9. Specific corrections taken to prevent the recurrence if possible: attached

10. Signatures :

Quality manager: Pathologist: 

### Troubleshooting Guidelines

Method	Technical	Clerical	Problem with PT material	No explanation after investigation
Equipment function checks	Misinterpretation / Wrong identification / Wrong labeling	Transcription error	Leaked / broken vial / not fit for analysis	Use this choice only when the investigation has yielded no satisfactory explanation
Scheduled maintenance not carried out or out of acceptable range	Dilution error / incorrect pipetting	Registration of wrong method or method change is not updated	Bacterial contamination	
Problem with data processing functions	Time delay between reconstitution and analysis		Perceived survey bias / inappropriate target value	
Faulty standard or other reagent	Calculation error			
Incorrect calibration	Analysis accepted in nonlinear range		Unstable material	
Carry over from previous specimen	Analysis done even though controls were out of range or controls not assayed		Matrix effect incompatible with method	
Result close to the detection limit of method	QC data within acceptable limits but showed trend suggestive of problem with the assay		No comparable peer group	
			Acceptable range too low	
	Sample mix up		Late shipment	
Other method related problem	Other technical problem		Improper package and temperature control	

Note: When all identifiable sources of error have been excluded, a single unacceptable result may be attributed to random error, particularly when the result of repeat analysis is acceptable. In such cases, no corrective action should be taken; as such an action may actually increase the probability of a future unacceptable result.

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Neu-QAP

(an EXTERNAL QUALITY ASSURANCE PROGRAMME)

PARTICIPANT FINAL ASSESSMENT REPORT (SUMMARY)

PT SCHEME: BIOCHEMISTRY



PC-1047

Cycle No	C3
Ref.No.	NEUQAP109
Sample ID	NEUQAP BIO SERUM/2021/7/C3/S7

Report Date : 10/08/2021

Sample : JUL 2021

Peer group

	Parameters	Labs (n)	Lab Value	Unit	Assigned value	SDPA	Um	Z-Score	Remarks
20	SODIUM (ISE, Direct)	8	114.90	mmol/L	138.91	2.93		8.20	Unsatisfactory
21	CREATININE (Dry chemistry)	4	0.93	mg/dL	0.98	0.02		2.39	Questionable
22	UREA (Dry chemistry)	6	15.50	mg/dL	16.65	0.69		1.67	Satisfactory
23	TOTAL PROTEIN (Dry chemistry)	5	4.00	g/dL	3.86	0.10		1.40	Satisfactory
24	POTASSIUM (ISE, Direct)	12	1.93	mmol/L	2.35	0.27		1.53	Satisfactory
25	GLUCOSE (Dry chemistry)	6	108.00	mg/dL	112.50	5.22		0.86	Good
26	CHOLESTEROL (Dry chemistry)	6	89.00	mg/dL	92.33	4.18		0.80	Good
27	TRIGLYCERIDES (Dry chemistry)	5	75.00	mg/dL	74.00	1.50		0.66	Good
28	BILIRUBIN (Dry Chemistry)	6	0.70	mg/dL	0.70	0.04			Good
29	ALBUMIN (Dry chemistry)	6	3.90	g/dL	3.98	0.15		0.57	Good
30	CHLORIDE (ISE, Direct)	7	37.70	mmol/L	42.81	5.33		0.96	Good
31	CALCIUM (Dry chemistry)	5	3.70	mg/dL	3.86	0.33		0.49	Good
32	URIC ACID (Dry chemistry)	5	1.40	mg/dL	1.40	0.13			Good
33	Direct Bilirubin (Dry chemistry)	6	0.10	mg/dL	0.20	0.25		0.40	Good
34	AST (Dry chemistry)	3	29.00	U/L					N/A

Authorised Signatory

\* denotes adjusted SDPA as per ISO 13528:2015(E)  
SDPA - Standard Deviation for Proficiency Assessment

Dr. Sujay Prasad  
Technical Manager and Program coordinator

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Lab 164803

PRIMA DIAGNOSTICS  
#93, 1ST MAIN ROAD, 1ST PHASE, SECTOR A,  
BANGALORE  
INDIA

Sample Summary Report  
Clinical Chemistry (Monthly) Program

Cycle 19

Jul 2020 - Jul 2021  
Sample No: 12  
Sample Date: 28 Jun 21  
Lot No: 211800



Instrument: SENA CORE - ST-100/100B/100C /200

Analyte	Unit	Result	Mean	Z-score	RMZ	Comparator
✓ Chloride	mmol/L	111.9	113	-0.27	-0.07	Peer
✓ Potassium	mmol/L	5.45	5.86	-1.58	-0.90	Peer
✓ Sodium	mmol/L	145.3	150	-1.20	-0.57	Peer

Instrument: VITROS Microslide Series

Analyte	Unit	Result	Mean	Z-score	RMZ	Comparator
✓ Albumin	g/dL	4.8	5.07	-1.76	-0.28	Peer
✓ Alkaline Phosphatase	U/L	345	354	-0.48	0.76	Peer
✓ ALT (ALAT/GPT)	U/L	170	172	-0.32	-0.21	Peer
✓ AST/GOT	U/L	361	343	1.45	0.76	Peer
✓ Bilirubin, Direct	mg/dL	1.8	1.77	0.08	-0.80	Peer
✓ Bilirubin, Indirect/BU	mg/dL	6.1	6.17	-0.27	1.37	Peer
✓ Bilirubin, Total	mg/dL	7.9	8.01	-0.43	-0.10	Peer
✓ Calcium	mg/dL	14.4	15.2	-1.62	0.58	Peer
✓ Cholesterol, HDL	mg/dL	70	72.5	-0.55	0.40	Peer
✓ Cholesterol, Total	mg/dL	358	374	-0.79	0.17	Peer
✓ Creatinine	mg/dL	1.29	1.33	-0.88	0.37	Peer
✓ G-Glutamyltransferase	U/L	449	435	0.98	1.40	Peer
✓ Glucose	mg/dL	132	137	-1.50	-0.71	Peer
▽ Protein, Total	g/dL	7.2	7.62	-2.45	-0.83	Peer
✓ Triglycerides	mg/dL	213	223	-1.23	-0.44	Peer
✓ Urea	mg/dL	170.7	171	-0.04	0.09	Peer
✓ Uric Acid	mg/dL	8.8	8.84	-0.18	-0.79	Peer

Instrument: VITROS Microwell Series

Analyte	Unit	Result	Mean	Z-score	RMZ	Comparator
✓ T3, Total	ng/mL	2.41	2.27	1.27	0.43	Peer
✓ T4, Total	µg/dL	12.3	12.1	0.34	-0.06	Peer
✓ TSH	µIU/mL	19.5	20.0	-0.52	0.41	Peer

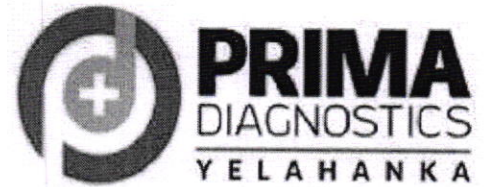
Legend: ✓ No Warnings    ⚠ Missing Result    ⓘ Late Results    ▽  $2.0 \leq |Z\text{-score}| < 3.0$     ✗  $|Z\text{-score}| \geq 3.0$   
 \* Amended Result (per participant's request)    ⚠ Non-robust determination of Mean and SD

Problem Classification: \_\_\_\_\_

Corrective Action: \_\_\_\_\_

Reviewed by: \_\_\_\_\_

Date: \_\_\_\_\_



Name : Mr. INTERLAB  
COMPARTION -1  
Ref. Doctor : DR. SELF  
Age / Sex : 22 Year(s) / Male  
Client : Walk-in  
Patient ID : PDY052062  
/isit No. : 21YP99163

Registered Date : 26/08/2021 02:42 PM  
Collected On : 26/08/2021 02:43 PM  
Received On : 26/08/2021 02:43 PM  
Reported On : 27/08/2021 12:08 PM



Report Type : Final

Test	Results	Units	Biological Reference Range
<b>HEMATOLOGY</b>			
<b><u>CBC - Complete Blood Count</u></b>			
<b><u>CBC</u></b>			
Haemoglobin - EDTA Whole Blood Spectrophotometry	15.8	g/dL	13.5-18
Red blood cell count - EDTA Whole Blood RBC Histogram(Volume)	4.8	million/cu.mm	Male: 4.2-6.5 Female: 3.7-5.6
Hematocrit(PCV) - EDTA Whole Blood RBC Pulse Height detection	44.7	%	Male: 39-54 Female: 34-48
Mean Corpuscular Volume(MCV) - EDTA Whole Blood Calculate From RBC Histogram	94.2	fL	75-95
Mean Corpuscular Hemoglobin(MCH) - EDTA Whole Blood Calculated From RBC and HGB	32.0	pg	26-32
Mean Corpuscular Hemoglobin Concentration (MCHC) - EDTA Whole Blood Calculated From HGB and HCT	<b>35.0</b>	g/dL	30-35
Red cell distribution width (RDW)-CV - EDTA Whole Blood Calculated	13.2	%	11.6-14.6
Platelet count - EDTA Whole Blood Platelet Histogram(Volume)	2.05	lakh/cu.mm	1.50-4.40
Total WBC count - EDTA Whole Blood Double Hydrodynamic Sequential System(DHSS)	<b>8880</b>	cells/cu.mm	4000-11000
Absolute Basophil Count - EDTA Whole Blood Flow Cytometry	0.02	10 <sup>3</sup> / $\mu$ l	0.01-0.05
Absolute Eosinophil Count - EDTA Whole Blood	<b>1.06</b>	cells/cu.mm	0.01-0.50

*Seema Umarji*

Dr. Seema Umarji  
MBBS MD, Pathologist.  
KMC NO:95296

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**PRIMA DIAGNOSTICS YELAHANKA**

A UNIT OF GURURAJGOVIND LIFESCIENCE YELAHANKA LLP

Reg. Office : #93, 1st A Min Road, 1st Phase, A Sector, Yelahanka New Town, Bengaluru - 560064. Tel 080 - 4624 5555

(Head Office : 4/16, 9th Main Road, 3rd Block, Jayanagar, Bengaluru - 560011. Tel : 080 - 46382333)

www.primadiagnostics.com



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Report Type : Final

Double Hydrodynamic Sequential System(DHSS)

Absolute Lymphocyte Count - EDTA Whole Blood 2.29 cells/cu.mm 1-3

Double Hydrodynamic Sequential System(DHSS)

Absolute Neutrophil Count - EDTA Whole Blood 4.90  $10^3 / \mu\text{l}$  2-7

Absolute Monocyte Count - EDTA Whole Blood 0.61  $10^3 / \mu\text{l}$  0.2-1.0

**DIFFERENTIAL COUNT - DC**

Neutrophils - EDTA Whole Blood 55 % 40-75  
DHSS / Microscopy

Lymphocytes - EDTA Whole Blood 26 % 20-45  
DHSS / Microscopy

Monocytes - EDTA Whole Blood 06 % 1-10  
Flow Cytometry/Microscopy

Eosinophils - EDTA Whole Blood 12 % 1-6  
DHSS / Microscopy

Basophils - EDTA Whole Blood 01 % 0-1  
DHSS / Microscopy

**BIOCHEMISTRY**

Alanine Transaminase(ALT/ SGPT) - Serum 15.0 U/L Adult: < 45  
UV with P-5-P Dry Chemistry

Alkaline Phosphatase - Serum 52.0 U/L 53-128  
Para Nitro Phenyl Phosphate,AMP Buffer Dry Chemistry

Cholesterol Total - Serum 153.0 mg/dl  
Cholesterol Oxidase Dry Chemistry  
Desirable: < 200  
BorderLine High: 200-239  
High: >= 240

*Seema Umarji*

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MBBS MD, Pathologist.  
KMC NO:95296

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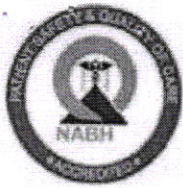
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Report Type : Final

Gamma-Glutamyl Transferase (GGT) - Serum ?-glutamyl-p-nitroanilide Dry Chemistry	14.0	U/L	< 55
HDL Cholesterol - Serum Colorimetric: non HDL Precipitation Method	<b>43.0</b>	mg/dL	Low: < 40.0 High: >= 60.0
<b><u>ELECTROLYTES (Na+, K+, Cl)</u></b> - Serum			
DIRECT ISE			
SODIUM (Na+)	141.5	mmol/L	137-145
POTASSIUM (K+)	3.81	mmol/L	3.5-5.1
CHLORIDE (Cl-)	105.5	mmol/L	98-107
<b><u>IMMUNOLOGY</u></b>			
T3 (TOTAL) - Serum Enhanced Chemiluminescence	1.27	ng/mL	Newborn: 0.7-2.0 < 1 Year: 1.0-2.4 1 - 5 Years: 1.0-2.4 6 - 10 Years: 0.9-2.4 11 - 50 Years: 0.7-2.0 > 50 Years: 0.4-1.8 First Trimester: 0.8-1.9 Second Trimester: 1.0-2.6

**SEROLOGY**

**RAPID PLASMA REAGIN (RPR) / VDRL**

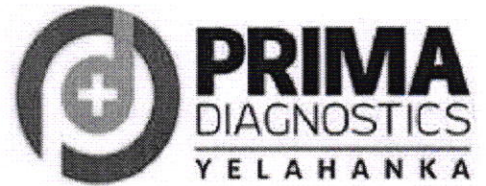
RAPID PLASMA REAGIN RPR / VDRL - Serum, Non Reactive  
 Slide Flocculation

INTERPRETATION - Serum Non Reactive

-- End of Report --

Dr. Seema Umarji  
 MBBS MD, Pathologist.  
 KMC NO:95296





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COMPARTION -1 Ref. Doctor : DR. SELF  
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Report Type : Final

Kindly correlate clinically. If necessary discuss/repeat



Name : Mr. INTERLAB  
COMPARTION -2  
Age / Sex : 23 Year(s) / Male  
Patient ID : PDY052063  
Visit No. : 21YP99164

Ref. Doctor : DR. SELF  
Client : Yelahanka

Registered Date : 26/08/2021 02:46 PM  
Collected On : 26/08/2021 03:20 PM  
Received On : 26/08/2021 03:21 PM  
Reported On : 26/08/2021 06:46 PM



Report Type : Final

Test	Results	Units	Biological Reference Range
<b>HEMATOLOGY</b>			
<b><u>CBC - Complete Blood Count</u></b>			
<b><u>CBC</u></b>			
Haemoglobin - Whole Blood Photometric (SLS Hemoglobin)	15.3	g/dL	13.5-18.0
Red blood cell count - Whole Blood Electrical impedance	4.97	million/cu.mm	4.2-6.5
Hematocrit(PCV) - Whole Blood Electrical impedance	46.1	%	39-54
Mean Corpuscular Volume(MCV) - Whole Blood Calculated from HCT and RBC	92.8	fL	75-95
Mean Corpuscular Hemoglobin(MCH) - Whole Blood Calculated from RBC and Hb	30.8	pg	26-32
Mean Corpuscular Hemoglobin Concentration (MCHC) - Whole Blood Calculated from HCT and Hb	33	g/dL	30-35
Red cell distribution width (RDW)-CV - Whole Blood Calculated	14.3	%	11.6-14.6
Platelet count - Whole Blood Electrical impedance	1.88	lakh/cu.mm	1.50-4.40
Total WBC count - Whole Blood	9400	cells/cu.mm	4000-11000
Absolute Basophil Count - Whole Blood Flow Cytometry	0.10	10 <sup>3</sup> / μl	0.01-0.05
Absolute Eosinophil Count - Whole Blood Flow Cytometry	1.20	10 <sup>3</sup> / μl	0.02-0.50
Absolute Lymphocyte Count - Whole Blood	2.40	10 <sup>3</sup> / μl	1-3

Dr. Shreya Prabhu,  
Pathologist  
KMC-No:114274

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4, "THERINA BLOCK", 17th A Cross, 3 rd Block, Jayanagar, Bangalore - 560 011

☎ 080 46382333 | 4638 2222 ✉ admin@primadiagnostics.com



Name : Mr. INTERLAB COMPARTION -2  
Ref. Doctor : DR. SELF  
Age / Sex : 23 Year(s) / Male  
Client : Yelahanka  
Patient ID : PDY052063  
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Report Type : Final

Flow Cytometry

Absolute Neutrophil Count - Whole Blood 4.90  $10^3 / \mu\text{l}$  2-7  
Flow Cytometry  
Absolute Monocyte Count - Whole Blood 0.70  $10^3 / \mu\text{l}$  0.2-1.0  
Flow Cytometry

**DIFFERENTIAL COUNT - DC** - Whole Blood  
Flow Cytometry/Microscopy

Neutrophils 52.5 % 40-75  
Lymphocytes 26.1 % 20-45  
Monocytes 7.7 % 1-10  
Eosinophils **13.0** % 1-6  
Basophils 0.7 % 0-1

**IMMUNOLOGY**

T3 ( TOTAL) - Serum 1.59 ng/mL  
CLIA  
Newborn : 0.7-2.0  
< 1 Year: 1.0-2.4  
1 - 5 Years : 1.0-2.4  
6 - 10 Years: 0.9-2.4  
11 - 50 Years: 0.7-2.0  
> 50 Years: 0.4-1.8  
First Trimester: 0.8-1.9  
Second Trimester: 1.0-2.6

**SEROLOGY**

**RAPID PLASMA REAGIN (RPR) / VDRL** - Serum  
Slide Flocculation

RAPID PLASMA REAGIN RPR / VDRL Non Reactive

Dr. Shreya Prabhu,  
Pathologist  
KMC-No:114274

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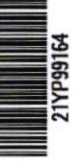
Home collection : +91 78294 90000 + 91 78294 93333, Web : www.primadiagnostics.com



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Test	Results	Units	Biological Reference Range
<b>BIOCHEMISTRY</b>			
Alanine Transaminase(ALT/ SGPT) - Serum IFCC without P-5-P	14.0	U/L	0-55
Alkaline Phosphatase - Serum IFCC PNPP	51.0	U/L	Male: 13 - 15 Year(s) : < 750 Both: 0 - 12 Year(s) : < 500 Both: 16 - 120 Year(s) : 40 - 150
Cholesterol Total - Serum CHOD-POD	158.00	mg/dl	Desirable: < 200 Borderline High: 200-239 High: > 240
Gamma-Glutamyl Transferase (GGT) - Serum Gamma--Glutamyl-p-nitroanilide IFCC	<b>9.0</b>	U/L	12-64
HDL Cholesterol - Serum Accelerator selective detergent	42.00	mg/dL	40-60
<b><u>ELECTROLYTES (Na+, K+, Cl)</u></b> - Serum ISE indirect			
SODIUM (Na+)	139	mmol/L	135-148
POTASSIUM (K+)	3.9	mmol/L	3.5-5.3
CHLORIDE(Cl-)	106	mmol/L	98-107

-- End of Report --

Kindly correlate clinically. If necessary discuss/repeat

Mr. Ramakrishna.B.  
Biochemist