Mr. TILAK RAJ

PID NO: P33724537129489 Age: 61 Year(s) Sex: Male



Reference: SELF

Sample Collected At: DR VINAY KUMAR CHOPRA DR VINAY KUMAR CHOPRA KOS Diagnostic Lab 6349/I Nicholson Road Ambala Cantt HRY 133001. 06-HR 13 Sample Processed At: Metropolis Healthcare Ltd E-21, B1 Mohan Co-op Ind Estate New Delhi-110044

VID: 240111108914477 Registered On: 12/12/2024 08:33 AM

Collected On: 11/12/2024 8:33AM Reported On:

12/12/2024 04:36 PM

Investigation		Observed	l Value	<u>Unit</u>	Bio	ogical Reference Interval
Mosey	Protein Electrophoresis, Serum (Serum)					
	Total Protein (Biuret)	<u>6.07</u>			6.2	-8.1
	Serum Albumin	<u>2.75</u>		g/dL	3.5	7-5.42
	Alpha 1 Globulin	0.36		g/dL	0.1	9-0.40
	Alpha 2 Globulin	<u>1.03</u>		g/dL	0.4	5-0.96
	Beta 1 Globulin	0.39		g/dL	0.3	0-0.59
	Beta 2 Globulin	0.41		g/dL	0.2	0-0.53
	Gamma Globulin	1.13		g/dL	0.7	1-1.54
	Albumin, Globulin Ratio	<u>0.83</u>			1.1	-2.2
	"M" Band		ONOCLONAL SEEN		Abs	sent

Interpretation:

Comment

- Serum protein electrophoresis is commonly used to identify multiple myeloma & related disorders.
- Electrophoresis is a method of separating proteins based on their physical properties & the pattern is dependant on the fractions of 2 types of protein: Albumin & Globulin (alpha1, alpha2, beta & gamma).

Raised Alpha-2.

Components	Major Components	Interferences		
Albumin	Albumin	Lipoproteins, Drugs, Bilirubin, Radiological contrast		
Alpha1 - globulins	α-1 antitrypsin, α-1 acid glycoprotein	-		
Alpha2 - globulins	α-2 macroglobulin, haptoglobin	Haptoglobin - haemoglobin complex		
Beta globulins	Transferrin, β-lipoprotein, IgA, IgM & sometimes IgG with complement proteins – C3 & C4	Fibrinogen		
Gamma globulins	IgG, IgA, IgM,IgD, IgE	CRP		

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Dr. Chakshu Bansal M.D (Pathology)

(DMC Reg. No. - 66994)



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DR VINAY KUMAR CHOPRA KOS
Diagnostic Lab 6349/I Nicholson Road
Ambala Cantt HRY 133001. 06-HR 13
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Direct detection at 200 nm in capillaries yields relative concentrations (percentages) of individual protein zones.

Remarks:

- 1.In following conditions serum Immunofixation is required to confirm monoclonal gammopathy or to differentiate monoclonal and polyclonal disorders.
- (A) A well defined 'M' band
- (B) Non-discrete bands..
- (C) Chronic inflammatory pattern (decreased Albumin, increased Alpha, increased Gamma region), which may mask the monoclonal band.
- (D) Isolated increase in any region, with otherwise normal pattern.

2. SPE- Distortions/ Non-Discrete bands:

Distortions in Serum Protein Electrophoresis (SPE) usually affect curves of the gamma, beta, and alpha-2 peaks. Distortions are subtle, non-discrete bands which cannot be quantified & therefore not plotted on the graphs. These could be seen in the following situations:

- a) Patients on therapy for Multiple myeloma.
- b) Distortions at the point of sample application can be especially problematic when one is dealing with cryoglobulins (often precipitates at the origin).
- c) Monoclonal gammopathies involving any of beta-migrating immunoglobulins (produce subtle distortion of the transferrin or C3 band)
- d) Subtle distortions in the beta & gamma regions may indicate towards Ig D / Ig E gammaopathies.

Method: Capillary Electrophoresis

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Observed Value

Unit

Date: 12/12/2024

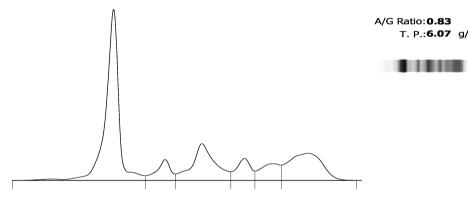
Biological Reference Interval

T. P.:**6.07** g/dL

PROTEIN ELECTROPHORESIS

Name: TILAK RAJ Sample: 20 Sex:

ID: 0528280310 Age : **61**



Fractions	%		Ref. %	Conc.	Ref. Conc.
Albumin	45.3	<	55.8 - 66.1	2.75	3.57 - 5.42
Alpha 1	5.9	>	2.9 - 4.9	0.36	0.19 - 0.40
Alpha 2	17.0	>	7.1 - 11.8	1.03	0.45 - 0.96
Beta 1	6.4		4.7 - 7.2	0.39	0.30 - 0.59
Beta 2	6.8	>	3.2 - 6.5	0.41	0.20 - 0.53
Gamma	18.6		11.1 - 18.8	1.13	0.71 - 1.54

Signature

-- End of Report --



Tests marked with NABL symbol are accredited by NABL vide Certificate no MC-2676; Validity till 04-04-2026

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