



SERUM, PROTEIN ELECTROPHORESIS

(Serum)

Investigation	Observed Value	Unit	Biological Reference Interval
Total Protein (Biuret)	8.11	g/dL	6.4-8.3
Serum Albumin	3.84	g/dL	3.57-5.42
Alpha 1 Globulin	0.28	g/dL	0.19-0.40
Alpha 2 Globulin	0.65	g/dL	0.45-0.96
Beta 1 Globulin	0.55	g/dL	0.30-0.59
Beta 2 Globulin	0.46	g/dL	0.20-0.53
Gamma Globulin	<u>2.34</u>	g/dL	0.71-1.54
Albumin, Globulin Ratio	<u>0.90</u>		1.1-2.2
Comment	MONOCLONAL BAND NOT SEEN. HOWEVER HYPERGAMMAGLOBULINEMIA IS NOTICED.		

Interpretation :

- 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).

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

Direct detection at 200 nm in capillaries yields relative concentrations (percentages) of individual protein zones.

Remarks :

- The following conditions require serum immunofixation to differentiate monoclonal and polyclonal disorders.
 - A well defined 'M' band
 - Faint band.
 - Chronic inflammatory pattern (decreased Albumin, increased Alpha, increased Gamma region), which may mask the monoclonal band.
 - Isolated increase in any region, with otherwise normal pattern.
- Shouldering of albumin peak along anodal or cathodal side may be seen with lipoproteins, drugs, bilirubin or radiological contrast.

Associated Tests:- Cytogenetic markers for Prognostication of Multiple Myeloma is available (Multiple Myeloma by FISH Panel - IGH gene rearrangement [t(11;14),t(4;14),t(14;16)] translocations, monosomy 13/deletion 13q14, deletion 11q, deletion 17p, chromosome 1p/q deletion/amplification ploidy status for chromosome 5,9 and 15) at Metropolis Healthcare.



Mrs. ANITA
Jaipur.. 302015
PIN No:
PID NO: P10623517058000
Age: 49 Year(s) Sex: Female



Reference: DR.DHAWAL VYAS
Sample Collected At:
Arth Diagnostics Pvt. Ltd.
4-c, Madhuvan, Apex Tower, Udaipur - 313001
Processing Location:- Metropolis Healthcare Ltd, Unit No 409-416, 4th Floor, Commercial Building-1, Kohinoor Mall, Mumbai-70

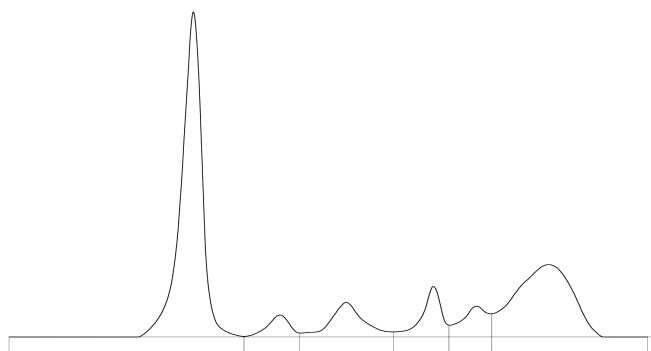
VID: 230089503566668
Registered On:
15/01/2024 10:51 AM
Collected On:
15/01/2024 10:50 AM
Reported On:
17/01/2024 07:59 PM

METROPOLIS HEALTHCARE PVT LTD, MUMBAI
Serum Protein Electrophoresis

Name: ANITA
ID : 0506664910
VID NO 230089503566668
Age: 49 Yrs

Working date 17/01/2024

Sample num.: 57
Sex: F



T.P : 8.11 g/dL

A/G Ratio : 0.90



Electrophoresis

Fractions	%	Ref. %	g/dl	Ref. g/dl
Albumin	47.3	55.8 - 66.1	3.84	3.57 - 5.42
Alpha 1	3.4	2.9 - 4.9	0.28	0.19 - 0.40
Alpha 2	8.0	7.1 - 11.8	0.65	0.45 - 0.96
Beta 1	6.8	4.7 - 7.2	0.55	0.30 - 0.59
Beta 2	5.7	3.2 - 6.5	0.46	0.20 - 0.53
Gamma	28.8	11.1 - 18.8	2.34	0.71 - 1.54

Comment : MONOCLONAL BAND NOT SEEN. HOWEVER
HYPERGAMMAGLOBULINEMIA IS NOTICED.

-- End of Report --



Tests marked with NABL symbol are accredited by NABL vide Certificate no MC-2139; Validity till 01-06-2024