H·O·D
HOUSE of DIAGNOSTICS

Patient Name :	Demo Patient Name	**Lab No :**	Demo Visit No
Age / Sex :	77 Y / M	**Registration On :**	21-Jan-25 07:40
Referred By :	DEMO HOSPITAL	**Patient ID :**	UHID.DEMO.001
Centre :	HOD Head Office		

Protein Electrophoresis

Serum Sample

Accession No: DEMO_BARCODE **Collected On:** 21-Jan-25 08:02 **Received On:** 21-Jan-25 11:57 **Approved On:** 22-Jan-25 17:54

Observation	Result	Unit	Biological Ref. Interval	Method
Spike in M Band	Seen			Agarose Gel Elecrophoresis

Protein Electrophoresis shows M band in early gamma globulin region ("M" Spike 1.11 g/dL).

Advised: Immunofixation Electrophoresis (IFE) and immunoglobulin profile (quantitative) and free light chains assay for confirmation.

Please advise repeat after 3 months if clinically indicated.

Please correlate clinically.

Clinical Significance: Serum protein electrophoresis is used to identify patients with multiple myeloma and other serum protein disorders. Electrophoresis separates proteins based on their physical properties, and the subsets of these proteins are used in interpreting the results.

Electrophoretic Region	Protein Components
Pre-Albumin	Pre-Albumin
Albumin	Albumin
Alpha 1	α-1antitrypsin, α -1glycoprotein, α lipoprotein (HDL Cholesterol), α-1 antichymotrypsin
Alpha2	α-2macroglobulin, Haptoglobin, beta lipoprotein (LDL Cholesterol), Ceruloplasmin, GC globulin (Vitamin D binding protein)
Beta 1	Transferrin, Hemopexin
Beta 2	Complement 3, Complement 4, Antithrombin III, IgA
Gamma	Fibrinogen (Plasma), IgM, IgG, C Reactive Protein (CRP), Plasminogen

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Plasma protein levels display reasonably predictable changes in response to acute inflammation, malignancy, trauma, necrosis, infarction, burns, and chemical injury.

Pattern	Protein Changes	Frequently Associated Diseases
Acute Inflammation	N or decreased albumin. increased A1 and/or A2 Globulin	Acute infection and inflammatory disorders
Chronic Inflammation	N or decreased albumin. increased Al &/or A2 Globulin & Gamma Globulin	Autoimmune diseases, Chronic liver diseases, Chronic infection, Cancer
Hypoalbuminemia	Decreased albumin	Metastatic cancer. CHF. Malnutrition. Protein losing disorders
Hypogamma. globulinemia	N or decreased albumin. decreased gamma Globulin	Lymphoproliferative disorders.Inflammatocy bowel disease. Congenital inununodeficiencies
Polyclonal ganunopathy	increased gamma Globulin(Broad diffuse band)	Autoinunune disease, Infections. Liver disease
Cirrhosis	Increased Gamma Globulin, Beta-gamma bridging	Cirrhosis
Protein losing disorder	Decreased albumin & al Globulin,increased a2 & beta Globulin	Nephrotic syndrome. Exudative skin disorders. Gastroenterophathies
Monoclooal ganunopathy	N or decreased albumin. increased gamma/beta Globulin (Sharp well defined narrow band)	Myeloma. Macroglobulinemia,MGUS, CLL.Lymphoma
Antitrypsin deficiency	Absent a1 Globulin	Alpha I Antitrypsin Deficiency
Hyperbeta-globulinemia	N or decreased albumin. increased beta Globulin	Hyperlipidemia. Diabetes mellitus. Iron deficiency anemia

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Advise: *Please correlate results clinically.*

This is a Demo Signature
and the doctor's signature should appear here

In case of any unexpected or alarming results, please contact us immediately for re-confirmation, clarifications, and rectifications, if needed.

Scan to Validate

There may be an additional PDF attachment in this report which has been redacted for privacy. Please contact info@hod.care, if you would like to make a booking for this test.