

Name	: Mr. KRISHNA DUWARAH	Sample ID	: A0060208
Age/Gender	: 61 Years/Male	Reg. No	: 0692408100355
Referred by	: Dr. V.P.BABU KOYALA	SPP Code	: SPL-AS-070
Referring Customer	: RAPID DIAGNOSTIC	Collected On	: 10-Aug-2024 04:00 AM
Primary Sample	: Whole Blood	Received On	: 13-Aug-2024 04:28 PM
Sample Tested In	: Serum	Reported On	: 16-Aug-2024 06:05 PM
Client Address	: B.G.ROAD, HATKOLA,BISWANATH CHARALI	Report Status	: Final Report

CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Ref. Range	Method
Free Lite Chains (Kappa /Lambda)-Serum				
Free light chain,Kappa	10.65	mg/L	3.3 – 19.40	Immunoturbidimetry
Free light chain,Lambda	19.41	mg/L	5.71 – 26.30	Immunoturbidimetry
Kappa/Lambda Ratio	0.54	%	0.26 – 1.65	Calculated

Interpretation :

Useful for Monitoring patients with monoclonal light chain diseases but no M-spike on protein electrophoresis. The specificity of this assay for detection of monoclonal light chains relies on the ratio of free kappa and lambda light chains. Once an abnormal free light chain (FLC) K/L ratio has been demonstrated and a diagnosis has been made, the quantitation of the monoclonal light chain is useful for monitoring disease activity.

Changes in FLC quantitation reflect change in the size of the monoclonal plasma cell population.

PDF Attached

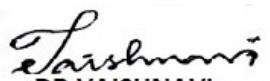
Albumin Fraction	3.9	g/dL	3.20 - 5.00	Agarose Gel Electrophoresis
Alpha 1-Globulin	0.18	g/dL	0.10-0.40	Agarose gel Electrophoresis
Alpha 2-globulin	0.50	g/dL	0.60 - 1.00	Agarose gel Electrophoresis
Beta- globulin	0.89	g/dL	0.6-1.3	Agarose gel Electrophoresis
Gamma-globulin	1.37	g/dL	0.70 - 1.50	Agarose gel Electrophoresis
Protein - Total	6.8	g/dL	6.4-8.2	Biuret
A/G Ratio	1.3		1.0 - 2.1	Calculated
Myeloma Band (M-Band)	0.00	g/dl		
Impression	Pattern shows normal. Advice SPE after 3 Months.			
Advise	Please correlate clinically.			

Comments:

- A homogeneous spike-like peak in a focal region of the gamma-globulin zone indicates a monoclonal gammopathy. Monoclonal gammopathies are associated with a clonal process that is malignant or potentially malignant, including multiple myeloma, Waldenström's macroglobulinemia, solitary plasmacytoma, smoldering multiple myeloma, monoclonal gammopathy of undetermined significance, plasma cell leukemia, heavy chain disease, and amyloidosis.
- M-protein (in the gamma region) level greater than 3 g/dL should be interpreted along with other radiologic and haematological findings to arrive at a diagnosis of Multiple myeloma and must not be considered in isolation. Occasionally M protein may appear as a narrow spike in the beta or alpha2 regions also. Up to one fifth of patients with Myeloma may have an M-protein spike of less than 1 g/dL.
- Hypogammaglobulinemia on serum protein electrophoresis occurs in about 10% of patients with multiple myeloma who do not have a serum M-protein spike. Most of these patients have a large amount of Bence Jones protein (monoclonal free kappa or lambda chain) in their urine, wherein urine protein electrophoresis should be performed. Monoclonal gammopathy is present in up to 8 percent of healthy geriatric patients.

*** End Of Report ***




DR.VAISHNAVI
MD BIOCHEMISTRY

Result rechecked and verified for abnormal cases

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CLINICAL BIOCHEMISTRY

Test Name	Results	Units	Ref. Range	Method
Protein - Total	6.8	g/dL	6.4-8.2	Biuret
Albumin Fraction	4.1	g/dL	3.20 - 5.00	Agarose Gel Electrophoresis
Total Gamma globulin Fraction	2.7	g/dL	2.5-3.80	Agarose Gel Electrophoresis
Immunoglobulin A(IgA):Quantitative	3.01	g/L	0.69 - 5.17	Immunoturbidimetry
Immunoglobulin G(IgG):Quantitative	6.97	g/L	5.40 -18.22	Immunoturbidimetry
Immunoglobulin M(IgM)-Quantitative	1.53	g/L	0.22 - 2.40	Immunoturbidimetry
Free light chain,Kappa	9.71	mg/L	3.3 – 19.40	Immunoturbidimetry
Free light chain,Lambda	16.93	mg/L	5.71 – 26.30	Immunoturbidimetry
Kappa/Lambda Ratio	0.57	%	0.26 – 1.65	Calculated
Result	No monoclonal band seen in SP lane and corresponding IgG IgA and IgM lanes			
Impression	Not suggestive of Monoclonal gammopathy. Please correlate clinically.			

Interpretation:

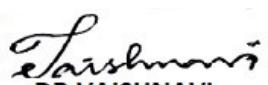
When an abnormal protein (band or peak) is detected, additional tests are done to identify the type of protein (immunotyping). **Immunofixation electrophoresis** or **immunosubtraction electrophoresis** can be used to identify abnormal bands seen on protein electrophoresis, typically in the gamma region, in order to determine whether a type of antibody (immunoglobulin) is abnormally produced (e.g., IgG, IgA, IgM).

In most cases of multiple myeloma, a single type of intact (whole) immunoglobulin is produced in excess. In a minority of cases, only one section of an immunoglobulin called a "free light chain" is produced in large amounts. These excess free light chains are released into the bloodstream and since they are relatively small molecules, they are filtered by the kidneys and released into the urine. Another term for these excess free light chains in the urine is Bence Jones proteins.

Correlate Clinically.

*** End Of Report ***




DR.VAISHNAVI
MD BIOCHEMISTRY

SERUM PROTEIN ELECTROPHORESIS REPORT

PATIENT NAME

Mr. KRISHNA DUWARAH

AGE/GENDER

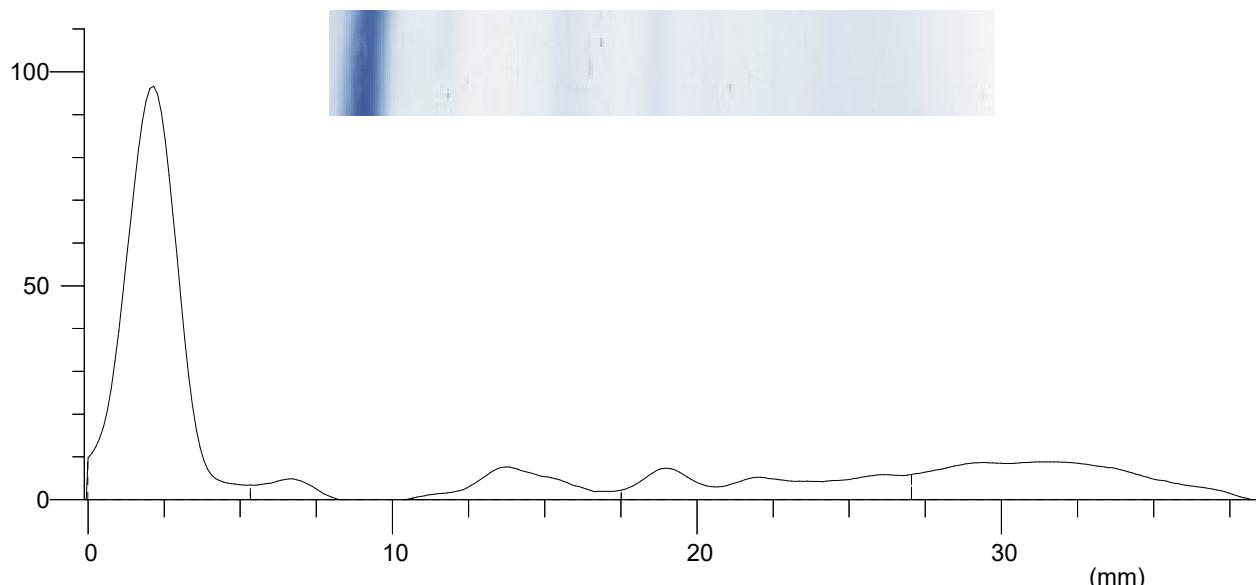
61 YRS/Male

REPORTED DATE

16/08/2024

SAMPLE ID

A0060208



Index	Band	Rel. Area	Total Protein Conc. (g/dL)	Range (g/dL)
1	Albumin	56.71%	3.86	3.20 ... 5.00
2	Alpha 1	2.72%	0.18	0.10 ... 0.40
3	Alpha 2	7.40%	0.50	0.60 ... 1.00
4	Beta	13.08%	0.89	0.60 ... 1.30
5	Gamma	20.09%	1.37	0.70 ... 1.50
Total			6.80	

Ratio A/G

1.31

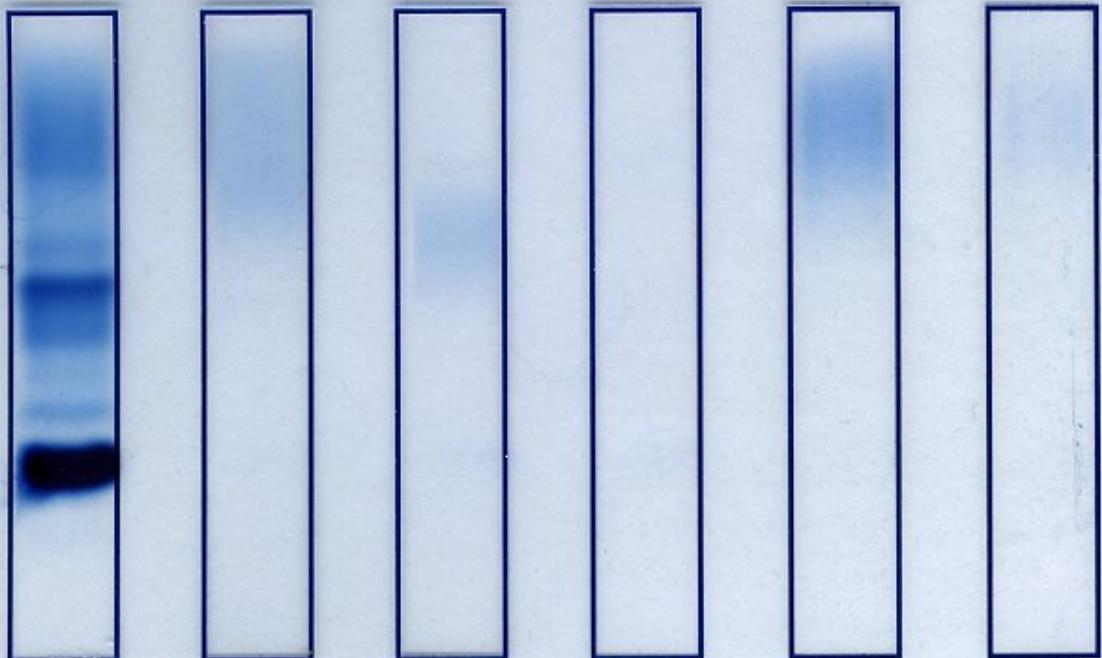
COMMENTS:

Pattern shows normal. Advice SPE after 3 Months.

Please correlate clinically.

SAS-MX Immunofixation

SP G A M K λ



HL-3-007/ISA 2002/04

helena | BioSciences
Europe

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