



SHIV PAL

PID NO: P54190054511  
Age: 79 Year(s) Sex: Male

**Reference:**

Sample Collected At:  
DR VINAY KUMAR CHOPRA  
KOS Diagnostic Lab, 6349/1, Nicholson  
Road, Ambala Cantt, HRY 133001.  
133001

**TEST REPORT**  
VID: 54193354937

Registered On:  
21/05/2019 04:00 PM  
Collected On:  
20/05/2019  
Reported On:  
21/05/2019 06:00 PM

<u>Investigation</u>	<u>Observed Value</u>	<u>Unit</u>	<u>Biological Reference Interval</u>
<b><u>Kappa And Lambda-Freelite Serum*</u></b>			
<b>Free Kappa (Light Chain), Serum*</b> (Serum,Nephelometry)	<b>21.4</b>	mg/L	3.3-19.4
<b>Free Lambda (Light Chain), Serum*</b> (Serum,Nephelometry)	18.8	mg/L	5.71-26.3
<b>Free Kappa/ Lambda Ratio*</b> (Serum)	1.14		0.26-1.65 In cases with renal impairment suggested reference interval :0.37 to 3.1

**Interpretation:**

1. Increased production of monoclonal immunoglobulins or free monoclonal light chains leads to a change in the k/lambda light chain quotient. A k/lambda quotient outside the reference interval is thus an indication of the existence of a monoclonal gammopathy.
2. Serum light chains are also dependent upon several factors like the type of clonality, presence of associated renal failure or polyclonal hypergammaglobulinaemia and the degree of bone marrow impairment from the growing tumour or from drug therapy. These factors should be considered during interpretation .
3. Following are the recommendations as per the International Myeloma Working Group (IMWG):- guidelines for serum free light chain analysis & interpretation in multiple myeloma and related disorders-

\* Use of free light chain ratio (rFLC) in combination of serum protein electrophoresis & immunofixation for diagnosis  
 \* Use of involved free light chain (iFLC) quantitation or the difference between the involved & uninvolved serum light chains (dFLC) for serial measurements during monitoring & to define complete response. During monitoring the ratio (rFLC) can be unreliable due to associated fluctuations in the concentration of uninvolved light chains and renal failure.

**Reference:** Hutchison et al, BMC Nephrology 2008

**-- End of Report --**

**Dr. Asim Israr Khan**  
M.D (Pathology)

Results relate only to the sample as received. Refer to the terms of reporting for details.

\* This test is not included in scope of NABL accreditation for the lab.

† This test was outsourced to Metropolis Healthcare Ltd, Mumbai.



Certificate No. : MC- 2676