

WE NOW OFFER

An Advanced Diagnostic Tool In Detecting Multiple Myeloma

Free Kappa and Free Lambda Light Chains

CompuNet is committed to providing its clients with the assays that are on the forefront of medicine. In keeping with this commitment, we have begun testing for Free Kappa and Free Lambda light chains in serum.

Clinical Significance

For over 100 years the use of Bence-Jones protein determination has been a key diagnostic finding in multiple myeloma. The Bence-Jones protein is the free kappa or free lambda light chains found in urine. These free light chains represent kappa or lambda immunoglobulins that are not bound to a corresponding “heavy” chain such as IgG, IgA, or IgM. The major disadvantages of this testing is the inherent variability in concentration from one sample to the next and the need to artificially concentrate the sample in an attempt to bring the concentration of the light chain to a detectable level.

Advances in immunology techniques have allowed for the measurement of free light chains in serum. The clear advantage is that the serum concentration is not dependant on patient hydration or the time of day that the sample is collected. Instead the serum concentrations of the free light chains is dependent on the balance between the production of plasma cells and their progenitors and renal clearance.

Increased Sensitivity Benefits

In cases where there is a polyclonal increase in immunoglobulin production or a decrease in renal function both kappa and lambda chains can increase 30-40 fold. However the relative concentration of these two immunoglobulins remains unchanged. In the case of a tumor production of the light chain, one type of light chain will be produced in excess and with the other light chain typically suppressed resulting in an abnormal kappa/lambda ratio. Thus the reporting of a kappa/lambda ratio will provide a clear indication of a polyclonal or monoclonal increase in light chain production.

The increase in sensitivity of the serum light chain assays over the Bence-Jones protein can also be seen in patients during chemotherapy treatment. In these patients, the urine assay will typically normalize while the serum assays remain abnormal. This fact points to the ability of the serum assays to detect residual disease.

Ordering and Collection Information

Order Code	Name	Specimen Requirement	CPT code**
15061	Free Kappa Light Chain	1 SST 1 ml serum	83883
15075	Free Lambda Light Chain	1 SST 1 ml serum	83883
11234	Free Kappa / Lambda Light chains *	1 SST 1 ml serum	83883 (x2)

* includes kappa/lambda ratio

** The CPT codes provided are based on AMA guidelines and are for informational purposes only.

CPT coding is the sole responsibility of the billing party. Please direct any questions regarding coding to the payor being billed.

For More Information

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