

Monitor Response To Treatment

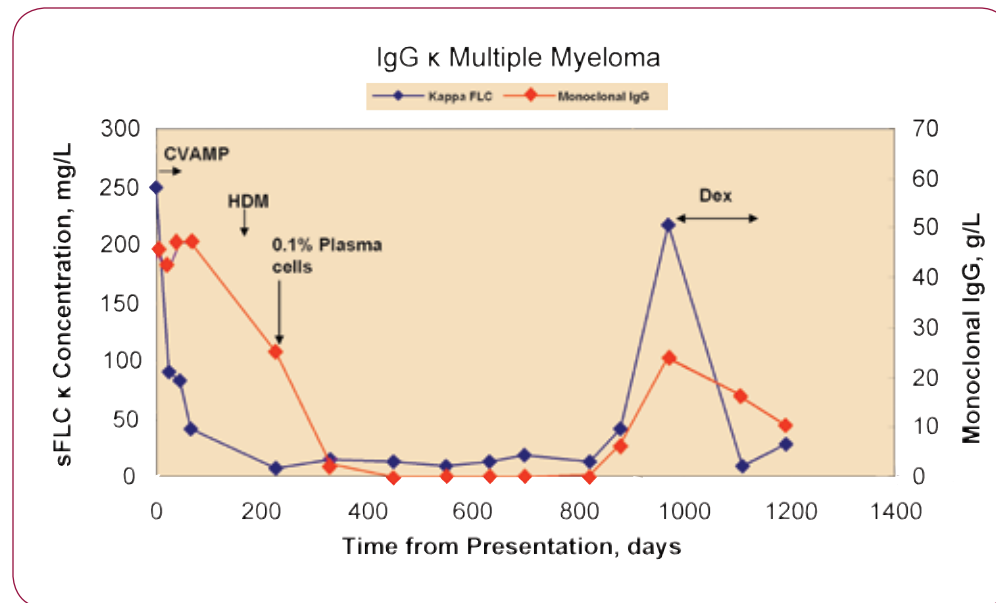
Immunoglobulin Half-Life

Protein	Half Life
IgG	20–25 days
IgA	6 days
IgM	6–8 days
Free Kappa	2–4 hours
Free Lambda	3–6 hours

- "Changes in serum-free immunoglobulin light chains (FLC) are a more rapid indicator of treatment response than intact immunoglobulins due to their shorter serum half-life"²
- "The rate and depth of fall of FLC relates to drug sensitivity of myeloma patients to individual chemotherapeutic agents and may rapidly indicate the need for further treatment or a change in treatment"²
- "Because of the shorter half-life of FLCs compared to intact immunoglobulins, levels of FLCs should more closely reflect tumour burden than levels of total light chain, IgG or total M-protein"³

This tumor produced intact monoclonal IgG κ and free κ light chains. During treatment, free κ serum levels decreased rapidly whereas IgG κ levels quantified with SPEP returned to normal very slowly.

A similar pattern of response was seen during a subsequent relapse and treatment period.



References

1. Dispenzieri *et al.* International Myeloma Working Group guidelines for serum-free light chain analysis in multiple myeloma and related disorders. *Leukemia*. 2009;23(2):215-224.
2. Pratt *et al.* The tumor kinetics of multiple myeloma following autologous stem cell transplantation as assessed by measuring serum-free light chains. *Leuk Lymphoma* 2006;47(1):21-28.
3. Van Gysel *et al.* Free light chain testing in follow-up of multiple myeloma. *Clin Chem Lab Med* 2006;44(8):1044-1046.
4. Durie *et al.* International uniform response criteria for multiple myeloma. *Leukemia* 2006;20(9):1467-1473.
5. Gertz *et al.* Definition of organ involvement and treatment response in immunoglobulin light chain amyloidosis (AL): a consensus opinion from the 10th International Symposium on Amyloid and Amyloidosis, Tours, France, 18-22 April, 2004. *Am. J. Hematol.* 2005;79(4):319-328.

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Freelite[®]

Serum Free Light Chain Assays

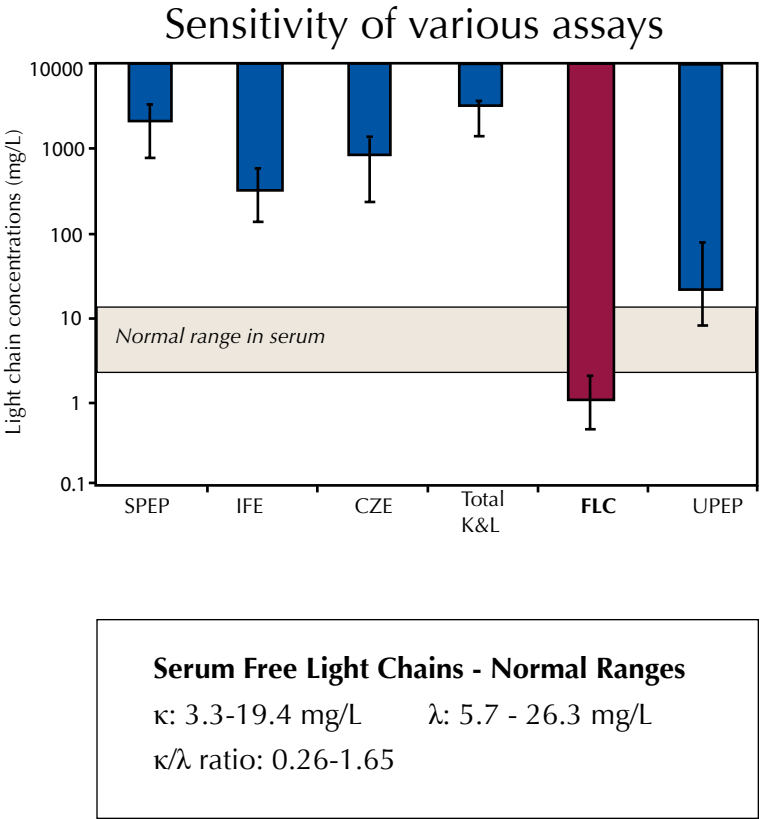


The International Myeloma Working Group recommends that serum free light chain assays be included in the initial evaluation of suspected myeloma, for prognosis of plasma cell dyscrasias, and for monitoring of oligosecretory myeloma and AL amyloidosis.¹



Detect More Multiple Myeloma & AL Amyloidosis Patients

- Freelite® is an automated assay that measures free kappa and free lambda light chains in the serum and urine
- Freelite is the only test that evaluates free kappa and free lambda levels through their normal serum ranges
- An abnormal kappa/lambda ratio is a sensitive and specific marker of a clinically important monoclonal gammopathy
- Up to 20% of multiple myeloma will be missed if evaluated by SPEP alone



Freelite plus SPEP detects 99% of myelomas



Protocols				
Diagnostic Sensitivity				
% of Paraproteins Detected				
	Multiple Myeloma	AL Amyloidosis	Light Chain Multiple Myeloma	Nonsecretory Multiple Myeloma
SPEP alone	90	50	45	0
Freelite alone	96	98	100	68
SPEP, Freelite +/- IFE	99	98	100	68

Freelite Is Trusted And Reliable

New guidelines from the International Myeloma Working Group recommend that serum free light chain assays be used in the initial evaluation of suspected myeloma, AL amyloidosis, and all other plasma cell dyscrasias.

Free light chain assays are also included in the International Uniform Response Criteria for multiple myeloma and the International Consensus Opinion in AL amyloidosis.

