

Freelite™
Serum Free
Light Chain Assay

Prognosis

Freelite can help you identify patients with a high risk of progression and poor prognosis

The serum free light chain assay can be used as an independent marker of prognosis in Multiple Myeloma and other plasma cell dyscrasias.

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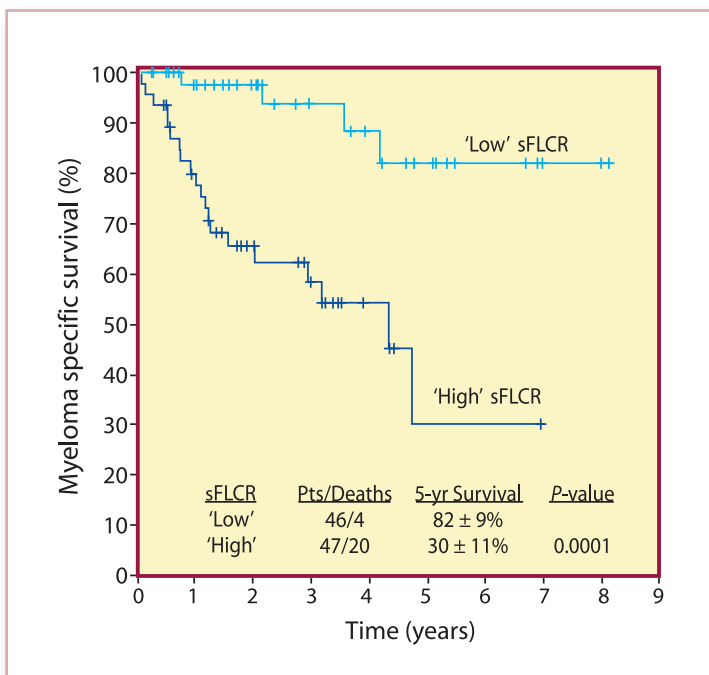
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Freelite allows accurate quantitative measurement of serum free light chains (sFLC). Clinical application of serum free light chain assays is well documented in the diagnosis and monitoring of patients with AL amyloidosis¹, Nonsecretory Multiple Myeloma², Light Chain Multiple Myeloma³ and Intact Immunoglobulin Multiple Myeloma⁴.

Freelite as an Independent Prognostic Indicator in Multiple Myeloma patients

Several publications relating to over 1600 patients, have highlighted **Freelite** as an independent marker of prognosis in Multiple Myeloma (MM).

- “High baseline SFLC levels were a reflection of higher tumor burden, higher degree of disease aggressiveness and light-chain-only MM with its greater propensity for renal failure.”⁵
- “The serum FLC ratio at initial diagnosis is an important predictor of prognosis in myeloma.”⁶
- “In conclusion, baseline sFLCR appears to be an easily determined powerful, independent and very promising novel prognostic factor for survival in patients with newly diagnosed MM.”⁷



“The 5-year disease-specific survival was 82% and 30% in patients with sFLCR lower than and equal or greater than the median, respectively (P=0.0001). sFLCR was an independent prognostic factor.”⁸

sFLCR = serum free light chain ratio

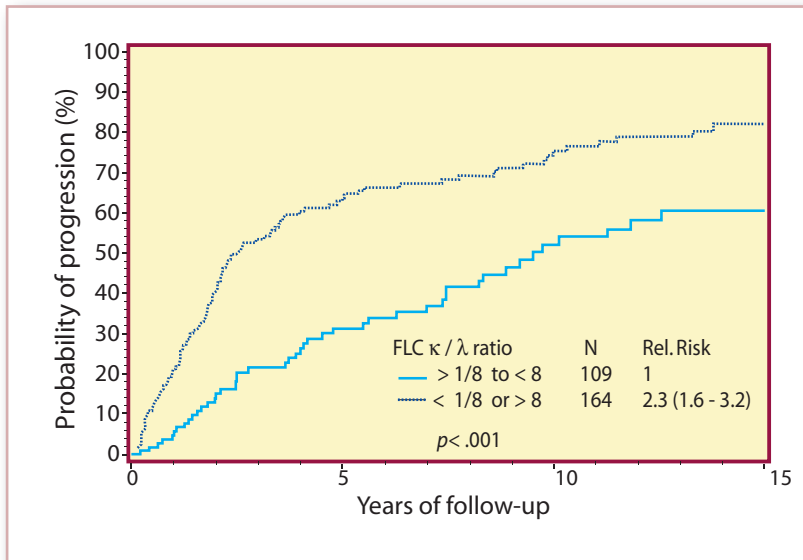
This research was originally published in BJH. Kyrtonis et al. Prognostic value of serum free light chain ratio at diagnosis in multiple myeloma. BJH 2007;137:240-243. © 2007 British Journal of Haematology.

These 4 studies⁵⁻⁸ all concluded that serum free light chain measurement at diagnosis can provide valuable prognostic information in MM patients. This supports the role of baseline sFLC measurements at diagnosis in all MM patients.

Determine likely progression of Smouldering Multiple Myeloma patients

Smouldering Multiple Myeloma (SMM) is an asymptomatic plasma cell disorder associated with a high risk of progression to symptomatic MM. In a recent study, 273 patients with SMM had baseline sFLC concentrations measured.⁹ The authors concluded:

“The serum immunoglobulin FLC ratio is an important additional determinant of clinical outcome in patients with SMM.”



Risk of progression to myeloma or related disorder in 273 patients with SMM.

Risk of progression of SMM to active myeloma using serum κ to λ FLC ratio of less than 0.125 (<1:8) or more than 8 (top curve) versus 0.125 to 8 (bottom curve)

This research was originally published in *Blood*. Dispenzieri *et al.* Immunoglobulin free light chain ratio is an independent risk factor for progression of smoldering (asymptomatic) multiple myeloma. *Blood* 2008;111:2:785-789. © American Society of Hematology.

Use Freelite to assess risk of progression in individuals with MGUS

An abnormal serum kappa/lambda FLC ratio has been identified as an independent risk factor for progression of Monoclonal Gammopathy of Undetermined Significance (MGUS) to Multiple Myeloma (MM) or related disorders¹⁰.

Incorporation of the Freelite assay into primary screening protocols for the diagnosis of monoclonal gammopathies will:

- Provide important prognostic information in MM, SMM, AL amyloidosis¹¹ and solitary bone plasmacytoma.¹²
- Allow risk stratification of MGUS patients and enable identification of high risk patients.¹⁰
- Enhance detection rates of screening protocols.^{13,14}
- Facilitate replacement of urine Bence Jones Protein (uBJP) analysis during initial investigations.^{15,16}

Freelite Analysis

Freelite assay time is less than 20 minutes, facilitating rapid clinical decisions. Assays are available on a wide range of automated platforms, ensuring accuracy and reduced hands-on time for analysis.

Freelite kits are available for Siemens (Dade Behring) BNTMII and BNProSpec[®], (Bayer) Advia[®], Roche P module, COBAS Integra[®] and Hitachi analysers, Beckman Coulter IMMAGE[®], Olympus AU[®] series, RADIM Delta and Binding Site SPAPLUSTM. Protocols for other instruments are being developed so please see our website for the latest information:

www.freelite.co.uk

All kits available in the USA are FDA cleared for *in vitro* diagnostic use to aid in the diagnosis and monitoring of Multiple Myeloma, Lymphocytic neoplasms, Waldenstrom's macroglobulinaemia, AL amyloidosis, Light Chain Deposition Disease and connective tissue diseases such as Systemic Lupus Erythematosus.

Freelite is CE marked for many European countries, please contact us for the latest information.

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BINDING SITE LIMITED
P.O. Box 11712
Birmingham
B14 4ZB
United Kingdom
Tel: +44 (0)121 436 1000
Fax: +44 (0)121 430 7061
info@bindingsite.co.uk

BINDING SITE INC.
5889 Oberlin Drive
Suite 101, San Diego
CA 92121
United States of America
Tel: 858 453 9177
Fax: 858 453 9189
info@thebindingsite.com

BINDING SITE GmbH
Robert-Bosch-Str. 2A
D-68723
Schwetzingen
Germany
Tel: +49 (0)6202 9262 0
Fax: +49 (0)6202 9262 222
office@bindingsite.de

BINDING SITE
Centre Atoll
14 rue des Glairaux
BP 226
38522 Saint Egrève
France
Tel: 04.38.02.19.19
Fax: 04.38.02.19.20
info@bindingsite.fr

BINDING SITE
Balma 243 4^o 3^o
08006 Barcelona
Spain
Tel: 902027750
Fax: 902027752
info@bindingsite.es
www.bindingsite.es

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