

# IgG Isoelectric Focusing

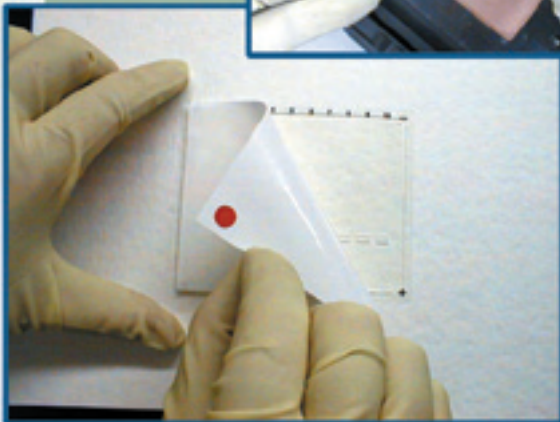
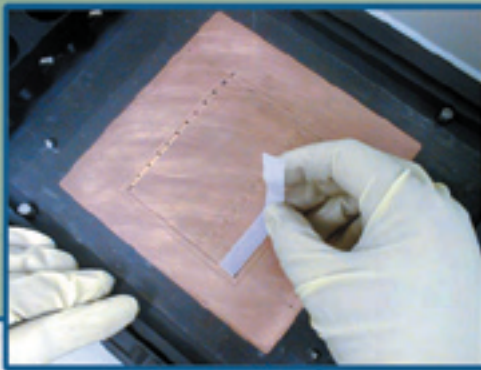
## CSF and Serum

The SPIFE menu now includes a new IgG isoelectric focusing method, in addition to cholesterol, proteins, hemoglobins and other analytes. The sensitivity of this technique is far superior to any other assay and is suitable for routine clinical use.

The SPIFE IgG IEF kit is intended for the identification of IgG-specific oligoclonal banding in serum and CSF using isoelectric focusing and immunoblotting. This technique is considered to be the "Gold Standard" method for the determination of intrathecal IgG synthesis in the clinical diagnosis of multiple sclerosis and offers advantages over other methods such as IgG quotient and blood-CSF barrier function.



*SPIFE's precise temperature control provides excellent resolution during isoelectric focusing.*



*Sensitive immunoblot technique provides detection even when total CSF IgG is within the normal range.*

## Advantages of SPIFE IgG IEF

- ❖ Simple procedure
- ❖ Performed on unconcentrated CSF
- ❖ Single-antibody IgG immunodetection
- ❖ 95% sensitivity and specificity\*

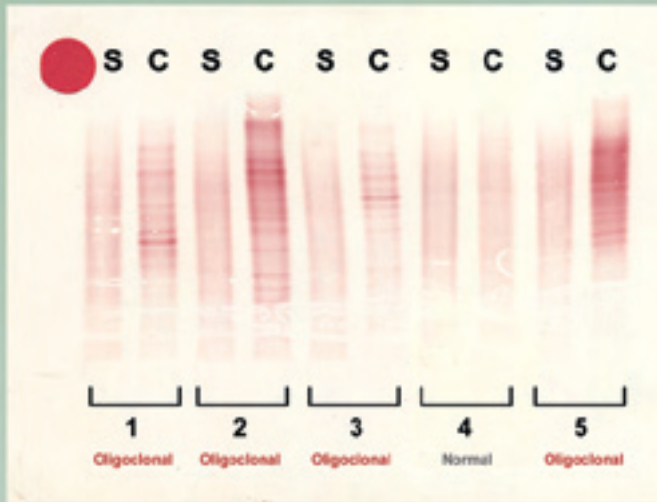
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# Diagnosing Multiple Sclerosis

Intrathecal IgG synthesis is well established as the diagnostic indicator in multiple sclerosis with isoelectric focusing considered to be twice as sensitive as the use of the IgG index. The use of isoelectric focusing gives superior resolution over standard electrophoresis and, coupled with IgG specific immunodetection, prevents interference from other proteins.

In patients with definite MS, the IgG IEF method has been found to be 95% sensitive vs. 63% with agarose electrophoresis on concentrated CSF or 74% using the CSF index.\*

When there is a restricted humoral immune response, oligoclonal bands can be detected in the CSF. The concentration of individual bands may be as low as 2% of the total CSF IgG but can be seen against the background of polyclonal IgG present through filtration from the blood. Due to this filtration, it is important to rule out oligoclonal IgG from the blood by running parallel serum samples against CSF samples. The presence of oligoclonal banding in CSF but not in serum is considered indicative of MS. With IEF, oligoclonal banding may be detected while the total CSF IgG concentration is still within the reference range.



**S = Serum**      **C = CSF**

*The presence of oligoclonal banding in CSF but NOT in serum is indicative of MS.*

\*Fortini, et al. Clin Chem 2003. Vol 49:6; Suppl, A-59

Cat No	Description	Qty
3389	SPIFE IgG IEF Kit	10 gels

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