**α-Internexin**  
**Mouse Monoclonal Antibody**

### Ordering Information

**Web** [www.encorbio.com](http://www.encorbio.com)  
**Phone** 352-372-7022  
**Fax** 352-372-7066

**HGNC name:** MCA  
**RRID:** AB_2572335  
**Immunogen:** Purified recombinant rat α-internexin expressed in and purified from E. coli.  
**Format:** Purified at 1mg/mL in PBS, 50% glycerol, 5mM NaN3  
**Storage:** Stable at 4°C for one year, for longer term store at -20°C  
**Recommended dilutions:** WB: 1:10,000, IICC and IHC: 1:5,000.

### References:


### Applications

| WB, IF/ICC, IHC | Mouse | IgG1 | 64-66kDa by SDS-PAGE | Hu, Rt, Ms, Co |


**Immunohistochemistry** of a section of rat facial nucleus 7 days following axotomy. These neurons are capable of regenerating their axons and also, concomitant with regeneration, strongly upregulate α-internexin in their perikarya. Other central neurons which are not able to regenerate their axons do not upregulate this protein after axotomy and untreated facial neurons normally show very low levels of α-internexin. Both findings suggest that α-internexin has a role in axonal regeneration.

### Background:

α-internexin is a Class IV intermediate filament protein originally discovered by two different groups of researchers as it copurifies with NF-L, NF-M and NF-H, the then better known major neurofilament "triplet" subunits (1,2). It is expressed only in neurons and in large amounts early in neuronal development, but is down-regulated in many neurons as development proceeds. Some neurons express α-internexin in the absence of NF-L, NF-M and NF-H, though most mature neurons express all four proteins. This α-internexin antibody has been shown, in peer-reviewed publications, to reveal the upregulation of α-internexin in facial neurons following experimental axotomy followed by down regulation on axonal regeneration (3). It is also the standard reagent used to identify and classify patients with neurofilament inclusion body disease, a specific form of frontotemporal lobar dementia (4-6). Finally it has been used to confirm the presence of circulating antibodies to α-internexin in the blood of certain patients with endocrine autoimmunity (7).

This antibody was made against full length recombinant rat α-internexin and the antibody binds to the α-internexin protein from all mammals tested to date, including mouse and human. It is clean and specific on western blots, ICC and IHC. We also supply an alternate mouse monoclonal antibody, a rabbit polyclonal antibody and a chicken polyclonal antibody to this protein, MCA-1D2, RPCA-a-Int and CPCA-a-Int.

### Abbreviation Key:

- mAb—Monoclonal Antibody  
- pAb—Polyclonal Antibody  
- WB—Western Blot  
- IF—Immunofluorescence  
- ICC—Immunocytochemistry  
- IHC—Immunohistochemistry  
- E—ELISA  
- Hu—Human  
- Mo—Mouse  
- Sa—S. aureus  
- Ch—Chicken  
- Ce—C. elegans  
- S. cerevisiae—Sa—S. cerevisiae  
- Pi—Pig  
- Dm—D. melanogaster  
- S. mutans—Sm—S. mutans  
- Ce—C. elegans  
- Sc—S. cerevisiae  
- Ec—E. coli.