**Description:**
Monoclonal Antibody against Pan-Neuronal Neurofilament Marker (non-phospho-neurofilament specific)

**Intended Use:**
**Research Use Only (RUO)**
This product is sold for laboratory research use only, not for human or in-vivo use.

**Form:**
Ascites Fluid (contains 0.01M sodium azide)

**Clone:**
SMI 311

**Host:**
Mouse

**IsoType:**
IgG1 and IgM Cocktail

**Species Reactivity:**
Mammalian

**Specificity:**
SMI 311 has been selected to provide a specific marker for neurons in tissue sections and cultures. In contrast to individual antinonphospho-neurofilaments that identify different subset of neurons and are, therefore, especially suitable for defining anatomic and functional differences in normal and pathologic neurons, SMI 311 is a convenient marker for neurons in general and their differentiation from non-neuronal cells. SMI 311 provides an early marker of neuronal migration and differentiation in human fetal development yielding Golgi-like images without the disadvantages of lack of selectivity and poor specificity of the Golgi technique. In specifically delineating cell bodies and dendrites, SMI 311 has been used to trace the "inside-out gradient" of neuron production and differentiation. Pathologic conditions, such as undernutrition affect SMI 311-visualized soma size and dendritic arborization. The IgM component of this antibody cocktail reacts with goat antimouse IgG and mouse ClonoPAP® via the light chains common to IgG and IgM.

**Uses:**
This antibody is effective in immunoblotting (WB), immunohistochemistry (IHC) and ELISA.

**Suggested Working Dilution:**
The extent of permissible dilution of SMI 311 beyond those recommended for general application depends upon nature and concentration of the antigen examined, species of the antigen, method of fixation and kind of section examined.

- WB: 1:1,000
- IHC: 1:5,000-1:10,000

**Tissue Sections:**
Formalin-fixed, paraffin-embedded tissues & frozen sections

**Pretreatment:**
For optimal staining, the sections should be pretreated with an antigen unmasking solution such as Retrieve-All 3 pH4.8 (SIG-31900).

**Incubation:**
24 hours at 2-8°C using Biotin based detection systems such as USA Ultra Streptavidin Detection (SIG-32250).

- ELISA: 1:1,000

**Notes:**
See reverse side for additional information
Positive Control: human cerebellum tissue

**Storage:**
Store at -20°C. Upon initial thawing, apportion into working aliquots and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody. For long-term storage, keep the antibody at -80°C.

**References:**


**Warranty/Conditions:**
Covance products may not be resold or modified for resale without prior written approval. All sales are subject to Covance Antibody Products Terms and Conditions of Sale.

**Datatsheet Revision Date:**
3/20/2013

**Related Products:**
- Neurofilament H & M Non-Phosphorylated (SMI 33) Monoclonal Antibody Catalog Number SMI-33R
- Neurofilament H Non-Phosphorylated (SMI 38) Monoclonal Antibody Catalog Number SMI-38R
- Neurofilament H Non-Phosphorylated (SMI 39) Monoclonal Antibody Catalog Number SMI-39R
- Neurofilament H Non-Phosphorylated (SMI 37) Monoclonal Antibody Catalog Number SMI-37R
- Neurofilament H Non-Phosphorylated (SMI 32) Monoclonal Antibody Catalog Number SMI-32R
- Ultra Streptavidin (USA) Horseradish peroxidase (HRP) 50 Test, Multi-Species, DAB Detection Kit Catalog Number SIG-32250
- Ultra Streptavidin (USA) Horseradish peroxidase (HRP) 50 Test, Multi-Species, AEC Detection Kit Catalog Number SIG-32248