

## Polyclonal Antibody to MEP1B - Aff - Purified

**Catalog No.:** 15-288-21535

**Quantity:** 0.1 mg

**Concentration:** 1.0 mg/ml

**Background:** Neurofilaments (NFs) are a type of intermediate filament (IF) expressed almost exclusively in neuronal cells, and in those cells most prominently in large axons, the longest cell protrusions known in vertebrates. NFs in most vertebrates are composed of three different polypeptide chains with different molecular weights (NF-H - heavy chain, NF-M - medium chain and NF-L - light chain). The three NF subunits share sequence and structural similarity in a coiled-coil core domain, but differ in the length and sequence of their N-termini and more dramatically of their C-termini which in the case of NF-M and NF-H form the flexible extensions that link NFs to each other and to other elements in the cytoplasm. The protein segment on the C-terminal side of the human NF-H rod is uniquely long (more than 600 AA) compared to other IF proteins and is highly charged (> 24 % Glu, > 25 % Lys), rich in proline (> 12 %) and impoverished in cysteine, methionine and aromatic AA. Its most remarkable feature is a repetitive sequence that covers more than half its length and includes the sequence motif Lys-Ser-Pro (KSP) greater than 40 times. Neurofilaments may also include smaller amounts of peripherin, alpha internexin, nestin and in some cases vimentin.

**Host / Isotype:** Chicken

**Immunogen:** Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.

**Format:** **State:** Liquid Ig fraction

**Purification:** Protein-A affinity chromatography

**Buffer System:** Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

**Applications:** Immunohistochemistry on frozen sections and paraffin sections (0.2 µg/ml).

Immunocytochemistry.

Western blot.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Specificity:** The antibody NF-01 recognizes a phosphorylated epitope on heavy neurofilament protein (210 kDa) of various species (recognized epitope conserved within all species). Antibodies to the various neurofilament subunits are very useful cell type markers since the proteins are among the most abundant of the nervous system, are expressed only in neurons and are biochemically very stable.

**For research and in vitro use only. Not for diagnostic or therapeutic work.**

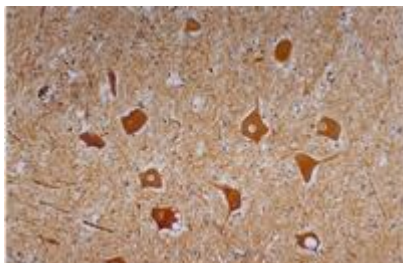
Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

Antibody Hotline - Technical Questions - Antibody Location Service  
Free Call: 0800-2274746 (Germany only) - [www.acris-antibodies.com](http://www.acris-antibodies.com)

**Storage:** Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.  
Shelf life: one year from despatch.

**General References:** Lukas Z, Draber P, Bucek J, Draberova E, Viklicky V, Dolezel S: Expression of phosphorylated high molecular weight neurofilament protein (NF-H) and vimentin in human developing dorsal root ganglia and spinal cord. Histochemistry. 1993 Dec; 100(6):495-502.

**Pictures:**



Immunohistochemistry staining of human cerebellum (paraffin-embedded sections) with anti-Neurofilament heavy protein (NF-01).

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