

## Product datasheet for **BM4078S**

### Neurofilament H (200 kD) Mouse Monoclonal Antibody [Clone ID: NF-01]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	NF-01
Applications:	IF, IHC, WB
Recommended Dilution:	<b>Western blot.</b> Recommended dilution: 1-2 µg/ml. <b>Immunocytochemistry.</b> <b>Immunohistochemistry on Paraffin Sections:</b> 5-10 µg/ml.
Reactivity:	All Species
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.
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.
Formulation:	PBS, pH~7.4 State: Purified State: Liquid purified Ig fraction from Ascites (> 95% pure by SDS-PAGE) Preservative: 15 mM Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. <b>DO NOT FREEZE!</b>
Stability:	Shelf life: one year from despatch.
Database Link:	<u><a href="#">P12037</a></u>



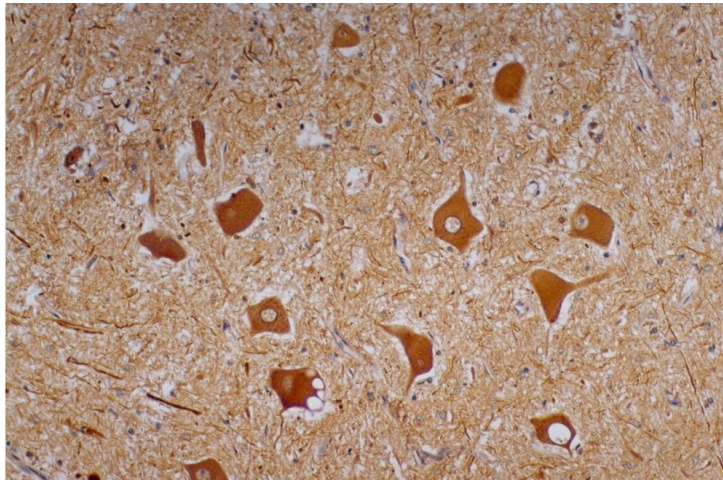
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**Background:**

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.

**Synonyms:**

NEFH, NF-H, KIAA0845, NFH, 200 kDa neurofilament protein, Neurofilament triplet H protein, (Neuronal Marker), heavy polypeptide

**Product images:**


Immunohistochemistry staining of human cerebellum (paraffin-embedded sections) with anti-Neurofilament heavy protein (NF-01).  
Primary antibody: 5 ug/ml