

Product datasheet for **AM26036PU-N**

Neurofilament H (200 kD) Mouse Monoclonal Antibody [Clone ID: NF-05]

Product data:

Product Type:	Primary Antibodies
Clone Name:	NF-05
Applications:	ELISA, IHC, WB
Recommended Dilution:	ELISA (Capture antibody). Western blot: 1-2 µg/ml <i>Positive Control:</i> Lysate of brain homogenate. Immunohistochemistry on Frozen Sections. Has been described to work in Immunohistochemistry on Paraffin Sections.
Reactivity:	Human, Porcine, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Pig brain neurofilament protein-enriched fraction after depolymerization of microtubules
Specificity:	The antibody <i>NF-05</i> recognizes a nonphosphorylated epitope of neurofilament heavy protein (NF-H), a 210 kDa intracellular structural protein of Intermediate Filament Proteins family. NF-H is mainly expressed in the central and peripheral nervous system and reproductive system and is biochemically very stable.
Formulation:	PBS, pH~7.4 State: Purified State: Liquid purified Ig fraction from Ascites Preservative: 15 mM Sodium Azide
Concentration:	lot specific
Purification:	Precipitation methods and Size-Exclusion Chromatography (> 95% pure by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. DO NOT FREEZE!
Stability:	Shelf life: one year from despatch.
Database Link:	P12037



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Background:

Neurofilaments (NFs) are a type of intermediate filaments (IF) expressed almost exclusively in neuronal cells, and in those cells most prominently in large axons. NFs in most vertebrates are composed of three different polypeptide chains with different molecular weights – neurofilament heavy protein (NF-H), medium (NF-M) and light protein (NF-L), which 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 amino acids) compared to other IF proteins and is highly charged (> 24 % Glu, > 25 % Lys), rich in proline (> 12 %) and impoverished in cysteine, methionine and aromatic amino acids. 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. Plasma neurofilament heavy chain level has been proposed as a marker of axonal injury and clinical use of its degeneration and loss has been suggested as a biomarker of several neurodegenerative diseases.

Synonyms:

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

Product images:

kDa:

202 —
116 —
98 —
47 —



Western blotting analysis of neurofilament heavy protein in porcine brain lysate (reducing conditions) by mouse monoclonal NF-05.