

30-1157: Anti-Neurofilament heavy protein Monoclonal Antibody (Clone:NF-01)

Clonality :	Monoclonal
Clone Name :	NF-01
Application :	ICC,IHC,WB
Format :	Purified
Isotype :	Mouse IgG1
Immunogen Information :	Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.

Description

Neurofilaments (NFs) are a type of intermediate filament (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.

Product Info

Amount :	0.1 mg
Purification :	Precipitation and chromatography
Storage condition :	Store at 2-8°C. Do not freeze.

Application Note

Immunohistochemistry (paraffin sections): Recommended dilution: 5-10 µg/ml.
Western blotting: Recommended dilution: 1-2 µg/ml.

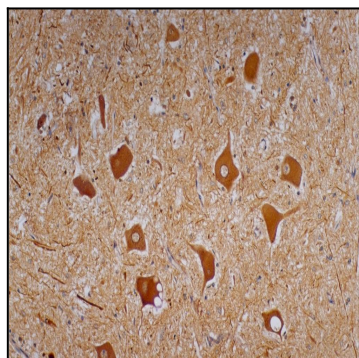


Figure 1: Immunohistochemistry staining of human cerebellum (paraffin-embedded sections) with anti-Neurofilament heavy protein (NF-01).