Datasheet for ABIN349701

anti-NEFH antibody

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Overview

Quantity:	0.1 mg
Target:	NEFH
Reactivity:	Human, Rat, Pig
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This NEFH antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	Pig brain neurofilament protein-enriched fraction after depolymerization of microtubules
Clone:	NF-05
Isotype:	IgG1
Specificity:	The antibody NF-05 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.
No Cross-Reactivity:	Mouse
Cross-Reactivity (Details):	Human, Porcine, Rat
Purification:	Purified by sequential steps of physicochemical fractionation (differential precipitation and solid-phase chromatography methods).

Product Details

Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	NEFH
Alternative Name:	Neurofilament heavy protein (NEFH Products)
Background:	Neurofilament heavy,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 improverished in cysteine, methionine and aromatic amino acids. Its most remarkable feature is a repetitive sequence that covers more than half its lenght and includes the sekvence 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.,NFH, NEFH, Neurofilament heavy chain, CMT2CC
Gene ID:	4744
UniProt:	P12036

Application Details

Application Notes:	ELISA: Capture antibody. Western blotting: Recommended dilution: 1-2 µg/mL.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide

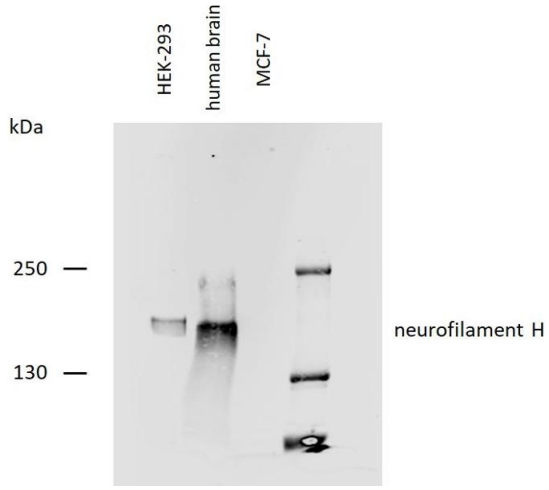
Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

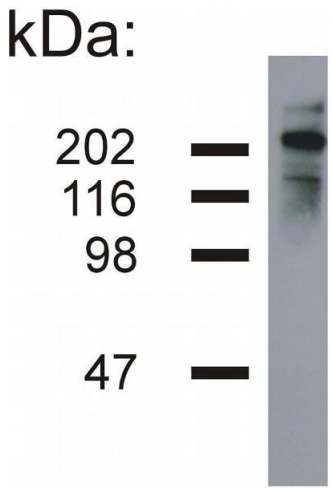
Product cited in:	Porchet, Probst, Dráberová, Dráber, Riederer, Riederer: "Differential subcellular localization of phosphorylated neurofilament and tau proteins in degenerating neurons of the human entorhinal cortex." in: **Neuroreport**, Vol. 14, Issue 7, pp. 929-33, (2003) (PubMed).

Images



Western Blotting

Image 1. Western blotting analysis of human neurofilament H protein using mouse monoclonal antibody NF-05 on lysates of HEK-293 cell line, human brain lysate, and MCF-7 cell line (neurofilament non-expressing cell line, negative control) under reducing conditions. Nitrocellulose membrane was probed with 2 µg/mL of mouse anti-neurofilament H monoclonal antibody followed by IRDye800-conjugated anti-mouse secondary antibody. Neurofilament H was detected around 180 kDa.



Western Blotting

Image 2. Western blotting analysis of neurofilament heavy protein in porcine brain lysate (reducing conditions) by mouse monoclonal NF-05 .