

Datasheet for ABIN94433

**anti-NEFH antibody**

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## Overview

Quantity:	0.1 mg
Target:	NEFH
Reactivity:	Mammalian
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This NEFH antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

## Product Details

Immunogen:	Pellet of porcine brain cold-stable proteins after depolymerization of microtubules.
Clone:	NF-01
Isotype:	IgG1
Specificity:	The antibody NF-01 recognizes a phosphorylated epitope on heavy neurofilament protein (210 kDa intracellular antigen) of various 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.
Cross-Reactivity (Details):	Mammalian
Purification:	Purified by protein-A affinity chromatography.
Purity:	> 95 % (by SDS-PAGE)

## Target Details

Target:	NEFH
Alternative Name:	Neurofilament heavy protein ( <a href="#">NEFH Products</a> )
Background:	<p>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 (&gt; 24 % Glu, &gt; 25 % Lys), rich in proline (&gt; 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.,NFH, NEFH, Neurofilament heavy chain, CMT2CC</p>
Gene ID:	4744
UniProt:	<a href="#">P12036</a>

## Application Details

Application Notes:	Immunohistochemistry (paraffin sections): Recommended dilution: 5-10 µg/mL. 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
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	<b>Do not freeze.</b>

## Handling

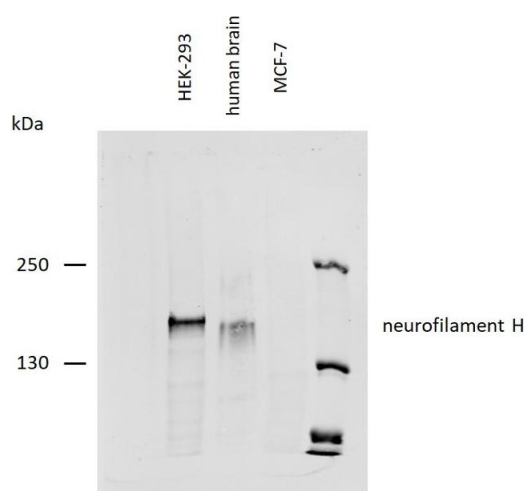
Storage: 4 °C

Storage Comment: Store at 2-8°C. Do not freeze.

## Publications

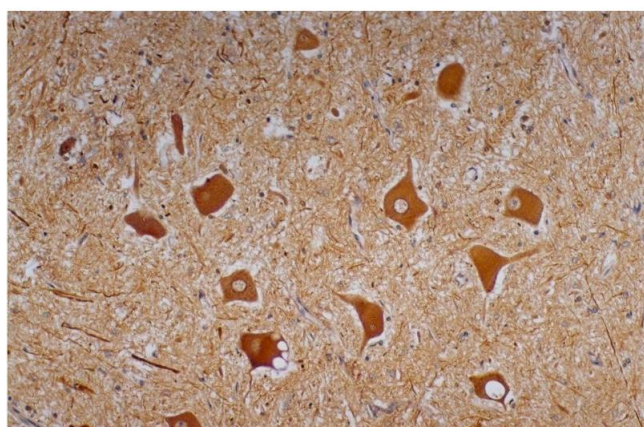
Product cited in: Lukás, Dráber, Bucek, Dráberová, Viklický, Dolezel: "Expression of phosphorylated high molecular weight neurofilament protein (NF-H) and vimentin in human developing dorsal root ganglia and spinal cord." in: **Histochemistry**, Vol. 100, Issue 6, pp. 495-502, (1994) ([PubMed](#)).

## Images



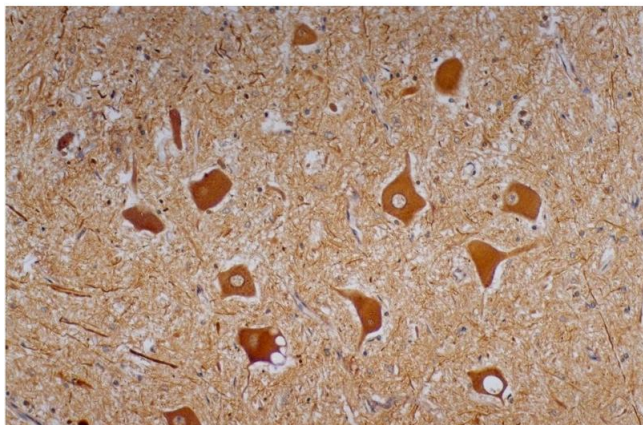
### Western Blotting

**Image 1.** Western blotting analysis of human neurofilament H protein using mouse monoclonal antibody NF-01 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.



### Immunohistochemistry

**Image 2.** Immunohistochemistry of paraffin-embedded sections (human cerebellum). Immunohistochemistry staining of human cerebellum (paraffin-embedded sections) with anti-Neurofilament heavy protein (NF-01).



#### Immunohistochemistry (Paraffin-embedded Sections)

**Image 3.** Immunohistochemistry staining of human cerebellum (paraffin-embedded sections) with anti-neurofilament heavy protein (NF-01).