



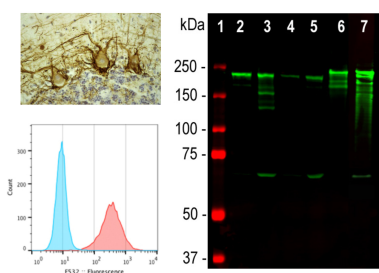
Mouse monoclonal antibody to Neurofilament Heavy, phosphorylated [NAP4]: affinity purified

Catalogue No.:	M-1387-50
Description:	Neurofilaments contain three intermediate filament proteins: light (68 kDa), medium (160 kDa) and heavy (200 kDa). Neurofilament heavy (NF200 or NF-H) is phosphorylated and it is thought that this results in the formation of interfilament cross bridges that are important in the maintenance of axonal caliber.
Batch No.:	See product label
Unit size:	50 µg
Antigen:	Full length native protein (purified) from Pig spinal cord.
Antibody Type:	Monoclonal
Isotype:	IgG1
Clone:	NAP4
Other Names:	NF-200; NF200; NF-H; NEFH; N52; Neurofilament heavy polypeptide; Neurofilament triplet H protein; 200 kDa neurofilament protein; KIAA0845; NFH;
Accession:	P12036 NFH_HUMAN;
Produced in:	Mouse
Purity:	Affinity purified IgG
Applications:	Western Blotting (WB), Immunocytochemistry (IC), Immunohistochemistry (IHC) and Flow Cytometry (2 µg/10 ⁶ cells). Suggested dilution for WB of 1:5,000-10,000. This antibody recognises NF-H in frozen sections, tissue culture and in formalin-fixed sections. Suggested dilution for IC is 1:500-1,000. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	The specificity of this antibody has been confirmed by WB. This antibody recognises phosphorylated NF-H KSP (lysine-serine-proline) type sequences. In some species there is some cross-reactivity with the related KSP sequences found in subunit NF-M.
Antibody Against:	Neurofilament Heavy, phosphorylated
Cross-reactivity:	Chicken, rat, mouse, pig, cow. Predicted to react with mammals due to sequence homology.
Form:	Lyophilised from PBS, pH 7.2-7.6, with 3% trehalose, without preservatives.
Reconstitution:	Reconstitute in 50 µL sterile distilled water. Centrifuge to remove any insoluble material.
Storage:	Store lyophilised antibody at 2-8°C. After reconstitution of ,aliquot and store at -20°C long-term for a higher stability. Store up to 2 weeks short-term at 2-8°C with preservative. Avoid freeze-thaw cycles.
Expiry Date:	12 months after purchase
Specific References:	1. Boylan K. et al (2009) Immunoreactivity of the phosphorylated axonal neurofilament H subunit (pNF-H) in blood of ALS model rodents and ALS patients: evaluation of blood pNF-H as a potential ALS biomarker. J Neurochem. 2009 Dec;111(5):1182-91.

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2. Rangaraju S. et al (2009) Molecular architecture of myelinated peripheral nerves is supported by calorie restriction with aging. *Aging Cell*. 2009 Apr;8(2):178-91.



Top left: Human cerebellar cortex fixed in formalin, embedded in paraffin and stained with Mouse monoclonal antibody to Neurofilament Heavy, phosphorylated [NAP4], M-1387-50, using the ABC (avidin biotin conjugate) immunohistochemistry method. The section was counterstained with heamatoxylin-eosin (blue). This antibody stains prominent basket cell axons surrounding the large Purkinje neurons. Granule cell layer at bottom of image, molecular layer at top. Right: Western blot analysis of pNF-H expression in tissue lysates. Lane 1: MWM; Lane 2: rat brain; Lane 3: rat spinal cord; Lane 4: mouse brain; Lane 5: mouse spinal cord; Lane 6: pig spinal cord; Lane 7: cow spinal cord. Strong band at about 200-220 kDa corresponds to the major phosphorylated form of the NF-H subunit. A minor band at about 160 kDa is the non-phosphorylated NF-H. Smaller proteolytic fragments of NF-H are also detected in spinal cord preparations. Antibody dilution: 1:10,000. Bottom left: Flow cytometry analysis of endogenously expressed Neurofilament Heavy, phosphorylated on mouse neural progenitor cells differentiated from mES and fixed overnight in 70% ethanol (Red curve). PE-labelled goat anti-mouse IgG was used as secondary antibody. Negative control processed with secondary antibody only (Blue curve). Data was acquired on Moxi Flow™.

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