



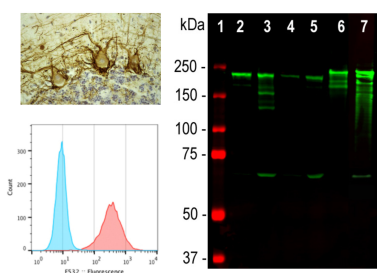
Mouse monoclonal antibody to Neurofilament Heavy, phosphorylated [NAP4]: affinity purified

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 ug
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 ug/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 uL sterile distilled water. Centrifuge to remove any insoluble material.
Storage:	Store lyophilised antibody at 2-8C. After reconstitution of aliquot and store at -20C long-term for a higher stability. Store up to 2 weeks short-term at 2-8C 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. 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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