Chicken polyclonal antibody to Neurofilament Heavy phosphorylated: IgY

Catalogue No.:	C-1386-50
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. This antibody binds primarily to the phosphorylated axonal forms of NF-H.
Batch No.:	See product label
Unit size:	50 uL
Antigen:	Purified bovine Neurofilament Heavy (NF-H)
Antibody Type:	IgY
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:	Chicken
Applications:	Western Blotting (WB), Immunocytochemistry (ICC) and Immunohistochemistry (IHC). Suggested dilution for WB is 1:100,000-1,000,000. Suggested dilution for ICC/IHC is 1:50,000-100,000. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	This antibody reacts with phosphorylated NF-H and is seen as a band of approx 200 kDa in WB. Refer to publication by Shaw et al (2005) for the use of this antibody in an ELISA to detect NF-H.
Antibody Against:	Neurofilament Heavy phosphorylated
Cross-reactivity:	Human, rat, mouse, cow. Predicted to react with other mammalian tissues due to sequence homology.
Form:	Lyophilised from PBS, pH 7.2-7.6.
Appearance:	White powder
Reconstitution:	Reconstitute in 50 uL sterile distilled water. Centrifuge to remove any insoluble material.
Storage:	Store lyophilized antibody at 2-8C. After reconstitution of lyophilised antibody, aliquot and store at -20C for a higher stability. Avoid freeze-thaw cycles.
Expiry Date:	12 months after purchase
Specific References:	1. Jarjour A.A. et al (2007) Maintenance of axo-oligodendroglial paranodal junctions requires DCC and netrin-1. J Neurosci. 2008 Oct 22;28(43):11003-14.
	2. Pearse D.D. et al (2007) Transplantation of Schwann cells and/or olfactory ensheathing glia into the contused spinal cord: Survival, migration, axon association, and functional recovery.

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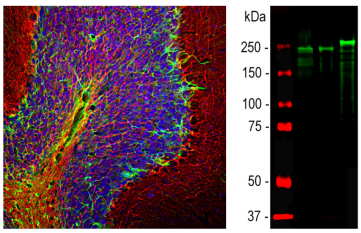
Glia. 2007 Jul;55(9):976-1000.

3. Shaw G. et al (2005) Hyperphosphorylated neurofilament NF-H is a serum biomarker of axonal injury. Biochem Biophys Res Commun. 2005 Nov 4;336(4):1268-77.



Left: Rat cerebellum section stained with chicken anti-pNF-H (red, 1:5,000), co-stained with rabbit anti-GFAP (green, R-1374-50) by Immunohistochemistry. Blue: DAPI nuclear stain. IHC Method: following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 uM, and free floating sections were stained. The NF-H antibody labels network of axons of different neurons, while the GFAP antibody stains astrocytes. Right: Western blot analysis of spinal cord lysates. Lane 1: MWM; Lane 2: rat; Lane 3: mouse; Lane 4: cow. Antibody dilution: 1:20,000. Strong band at about 200-220 kDa corresponds to the phosphorylated from of NF-H. The protein from different species is known to have different SDS-PAGE molecular weights, with large species generally expressing larger proteins. Smaller proteolytic fragments of NF-H are also detected in spinal cord preparations with this antibody. The antibody does not recognize non-phosphorylated forms of NF-H.

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