abcam

Product datasheet

Anti-Neurofilament heavy polypeptide antibody ab4680

★★★★★ 12 Abreviews 118 References 画像数 6

製品の概要

製品名 Anti-Neurofilament heavy polypeptide antibody

製品の詳細 Chicken polyclonal to Neurofilament heavy polypeptide

由来種 Chicken

アプリケーション 適用あり: ICC, IHC-FrFI, WB

種交差性 交差種: Mouse, Rat, Cow, Human

免疫原 Full length native protein (purified). This information is proprietary to Abcam and/or its suppliers.

特記事項

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C. Do Not Freeze.

パッファー Preservative: 0.032% Sodium azide

Constituent: PBS

精製度 lgY fraction

特記事項(精製) This is an lgY prep, similar to a mammalian ammonium sulphate lgG prep from serum. It is virtually

pure IgY and we estimate that about 5% of material is specific to the immunogen.

ポリ/モノ ポリクローナル

アイソタイプ lqY

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab4680の使用に適用されますアプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

1

アプリケーション	Abreviews	特記事項
ICC	*** <u>*</u>	Use at an assay dependent concentration.
IHC-FrFI	*** <u>*</u>	Use at an assay dependent concentration.
WB		1/1e+006. Predicted molecular weight: 200-220 kDa.

ターゲット情報

機能

Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber. NF-H has an important function in mature axons that is not subserved by the two smaller NF proteins.

関連疾患

Defects in NEFH are a cause of susceptibility to amyotrophic lateral sclerosis (ALS) [MIM:105400]. ALS is a neurodegenerative disorder affecting upper and lower motor neurons, and resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology is likely to be multifactorial, involving both genetic and environmental factors.

配列類似性

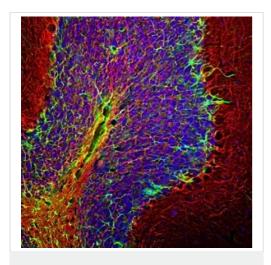
Belongs to the intermediate filament family.

翻訳後修飾

There are a number of repeats of the tripeptide K-S-P, NFH is phosphorylated on a number of the serines in this motif. It is thought that phosphorylation of NFH results in the formation of interfilament cross bridges that are important in the maintenance of axonal caliber. Phosphorylation seems to play a major role in the functioning of the larger neurofilament polypeptides (NF-M and NF-H), the levels of phosphorylation being altered developmentally and coincident with a change in the neurofilament function.

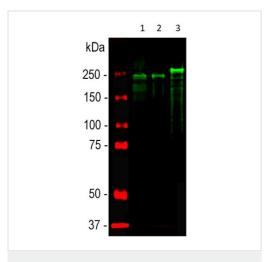
Phosphorylated in the Head and Rod regions by the PKC kinase PKN1, leading to inhibit polymerization.

画像



Immunohistochemistry - Free Floating - Anti-Neurofilament heavy polypeptide antibody (ab4680) Immunohistological analysis of a rat cerebellum section stained with ab4680 at a dilution 1:5,000 in red, and co-stained with rabbit pAb to GFAP at a dilution 1:5,000 in green. The blue is DAPI staining of nuclear DNA.

Following transcardial perfusion with 4% paraformal dehyde, brain was post fixed for 24 hours, cut to 45 μ M, and free floating sections were stained.



Western blot - Anti-Neurofilament heavy polypeptide antibody (ab4680)

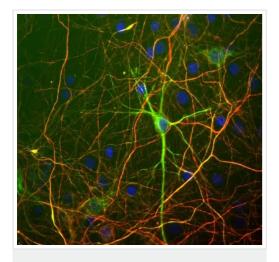
All lanes : Anti-Neurofilament heavy polypeptide antibody (ab4680) at 1/20000 dilution

Lane 1: Rat spinal cord lysate

Lane 2: Mouse spinal cord lysate

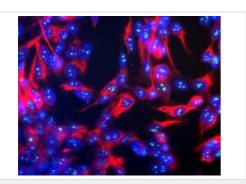
Lane 3: Cow spinal cord lysate

Predicted band size: 200-220 kDa



Immunocytochemistry - Anti-Neurofilament heavy polypeptide antibody (ab4680)

Mixed neuron/glial cultures stained with a mouse monoclonal antibody to neurofilament subunit NF-L (green) and ab4680, chicken antibody to neurofilament heavy polypeptide. This antibody binds primarily to the phosphorylated axonal forms of NF-H, in contrast to the NF-L antibody which stains both axonal and dendritic/perikaryal neurofilaments. The NF-L antibody therefore reveals a prominent cell body in green, while the surrounding axonal profiles are orange, since the are bound by both NF-L and the chicken NF-H antibody. Blue is a DNA stain.



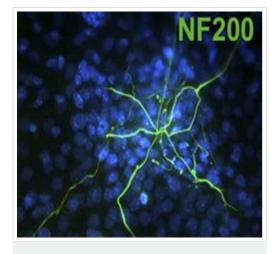
Immunocytochemistry/ Immunofluorescence - Anti-Neurofilament heavy polypeptide antibody (ab4680)

Human neuroblastoma SH-SY5Y cells stained with chicken anti-NF-H (red) and mouse monoclonal to fibrillarin 38F3 (green). Nuclear DNA is revealed with Hoechst dye (blue). The NF-H antibody was used at a dilution of 1/100000 and the fibrillarin monoclonal at 1/1000. Cultures were processed using our standard fixation and staining procedure (in protocol section).



Immunocytochemistry/ Immunofluorescence - Anti-Neurofilament heavy polypeptide antibody (ab4680)

Rat Neurons stained with chicken anti-NF-H (green). The NF-H antibody was used at a dilution of 1/100000 using our standard fixation and staining procedure (in protocol section).



Immunocytochemistry - Anti-Neurofilament heavy polypeptide antibody (ab4680)

Image from Wirt SE et al, J Cell Biol. 2010 Nov 15;191(4):809-25. Epub 2010 Nov 8, Fig 4. DOI 10.1083/jcb.201003048

ab4680 staining Neurofilament heavy polypeptide (green) in murine embryoid bodies by Immunocytochemistry/ Immunofluorescence.

Nuclei were visualized with DAPI.

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