

## Product datasheet

# Anti-Neurofilament heavy polypeptide antibody ab8135

★★★★★ [25 Abreviews](#) [137 References](#) [2 Images](#)

### Overview

<b>Product name</b>	Anti-Neurofilament heavy polypeptide antibody
<b>Description</b>	Rabbit polyclonal to Neurofilament heavy polypeptide
<b>Host species</b>	Rabbit
<b>Specificity</b>	The antibody recognizes both phosphorylated and non-phosphorylated forms of NF-H. Specifically recognizes the heavy microfilament subunit (~180-220 kDa).
<b>Tested applications</b>	<b>Suitable for:</b> IHC-FrFI, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat
<b>Immunogen</b>	Full length native protein (purified) corresponding to Cow Neurofilament heavy polypeptide. From bovine spinal cord. Database link: <a href="#">F1MSQ6</a>
<b>General notes</b>	<p>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.</p> <p>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&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.03% Sodium azide
<b>Purity</b>	Whole antiserum
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab8135 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-FrFI	★★★★★ (1)	1/5000.
WB	★★★★★ (2)	1/10000.

## Target

### Function

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.

### Involvement in disease

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.

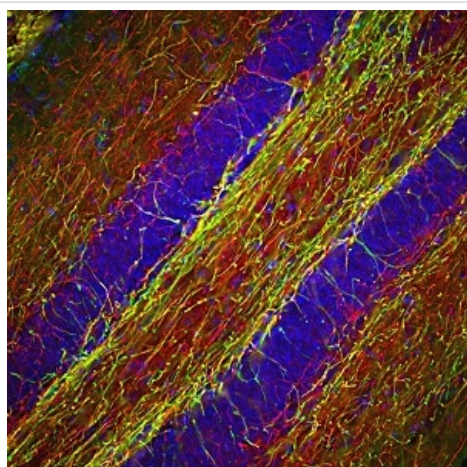
### Sequence similarities

Belongs to the intermediate filament family.

### Post-translational modifications

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.

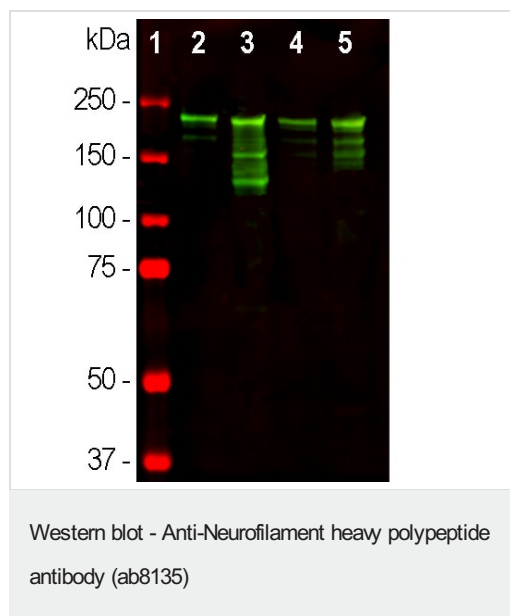
## Images



Immunohistochemistry - Free Floating - Anti-Neurofilament heavy polypeptide antibody (ab8135)

Immunohistological analysis of a mouse hippocampus section stained with ab8135 at a dilution 1:2,000 in red, and co-stained with a mouse mAb to myelin basic protein (MBP) at a dilution 1:5,000 in green. The blue is DAPI staining of nuclear DNA.

Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45  $\mu$ M, and free-floating sections were stained.



**All lanes :** Anti-Neurofilament heavy polypeptide antibody (ab8135)  
at 1/10000 dilution

**Lane 2 :** Rat brain tissue lysate

**Lane 3 :** Rat spinal cord tissue lysate

**Lane 4 :** Mouse brain tissue lysate

**Lane 5 :** Mouse spinal cord tissue lysate

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

### Our Abpromise to you: Quality guaranteed and expert technical support

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- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

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- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors