

## Product datasheet

### Anti-160 kD Neurofilament Medium (phospho S614 + S619) antibody [EPR580(2)Y] ab68142

Recombinant RabMAb

3 Images

#### Overview

<b>Product name</b>	Anti-160 kD Neurofilament Medium (phospho S614 + S619) antibody [EPR580(2)Y]
<b>Description</b>	Rabbit monoclonal [EPR580(2)Y] to 160 kD Neurofilament Medium (phospho S614 + S619)
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P <b>Unsuitable for:</b> Flow Cyt, ICC/IF or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	SH-SY5Y cell lysates; human brain tissue
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR580(2)Y

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab68142 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
WB		
IHC-P		

### Application notes

IHC-P: 1/100 - 1/250.

WB: 1/500. Detects a band of approximately 160 kDa (predicted molecular weight: 102 kDa).

Is unsuitable for Flow Cyt, ICC or IP.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

## Target

### Function

Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber.

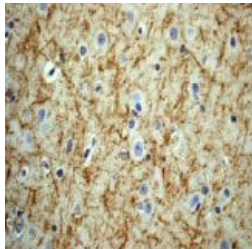
### Sequence similarities

Belongs to the intermediate filament family.

### Post-translational modifications

There are a number of repeats of the tripeptide K-S-P, NFM is phosphorylated on a number of the serines in this motif. It is thought that phosphorylation of NFM 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 coincidentally with a change in the neurofilament function. Phosphorylated in the head and rod regions by the PKC kinase PKN1, leading to the inhibition of polymerization.

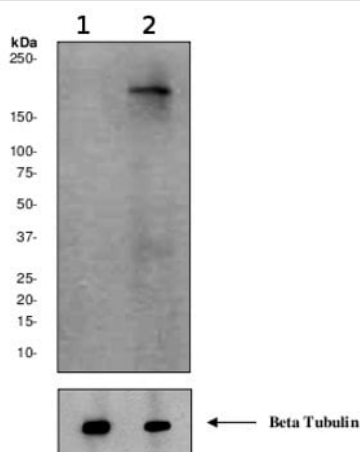
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-160 kD Neurofilament Medium (phospho S614 + S619) antibody [EPR580(2)Y] (ab68142)

Immunohistochemical analysis of paraffin-embedded human brain tissue using ab68142 at a dilution of 1/100 - 1/250

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-160 kD Neurofilament Medium (phospho S614 + S619) antibody [EPR580(2)Y] (ab68142)

**All lanes :** Anti-160 kD Neurofilament Medium (phospho S614 + S619) antibody [EPR580(2)Y] (ab68142) at 1/500 dilution

**Lane 1 :** SH-SY5Y cell lysate treated with Alkaline phosphatase

**Lane 2 :** Untreated SH-SY5Y cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** HRP conjugated Goat anti-rabbit at 1/2000 dilution

**Predicted band size:** 102 kDa

**Observed band size:** 160 kDa

#### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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**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.

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