

Rabbit Anti-NF-M antibody

SL0710R

Product Name NF-M

Chinese Name 中分子量神经丝蛋白抗体

Alias Neurofilament medium polypeptide; 160 kDa neurofilament protein; neurofilament 3; Nefm; 150kDa medium; NEF 3; NEF3; NEFM; Neurofilament 3; Neurofilament medium polypeptide; Neurofilament protein medium; Neurofilament triplet M protein; Neurofilament3; NF M; NF160; Neurofilament-M; Neurofilament M; NFM; NFM_HUMAN.

Research Area Cell biology immunology Neurobiology

Immunogen Species Rabbit

Clonality Polyclonal

React Species Mouse, Rat, (predicted: Human, Pig, Cow,)

Applications WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 102kDa

Cellular localization cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human NF-M: 101-200/916

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic

or diagnostic applications.

PubMed

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Neurofilaments are the 10nm or intermediate filament proteins found specifically in neurons, and are composed predominantly of three major proteins called neurofilament light (NF-L), neurofilament medium (NF-M) and neurofilament heavy (NF-H). Neurofilament medium runs on SDS-PAGE gels in the range 145-170 kDa, with some variation in different species. Antibodies to this protein are useful to identify neurons and their processes in tissue sections and in tissue culture. Neurofilament medium can also be useful in studies of neurofilament accumulations seen in many neurological diseases, such as Lou Gehrig's disease or Alzheimer's disease.

Function:

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

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.

**Product
Detail**

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.

Similarity:

Belongs to the intermediate filament family.

SWISS:

P12839

Gene ID:

4741

Database links:

[Entrez Gene: 281347](#) Cow

[Entrez Gene: 4741](#) Human

[Entrez Gene: 18040](#) Mouse

[Entrez Gene: 24588](#) Rat

[Omim: 162250](#) Human

[SwissProt: O77788](#) Cow

[SwissProt: P07197](#) Human

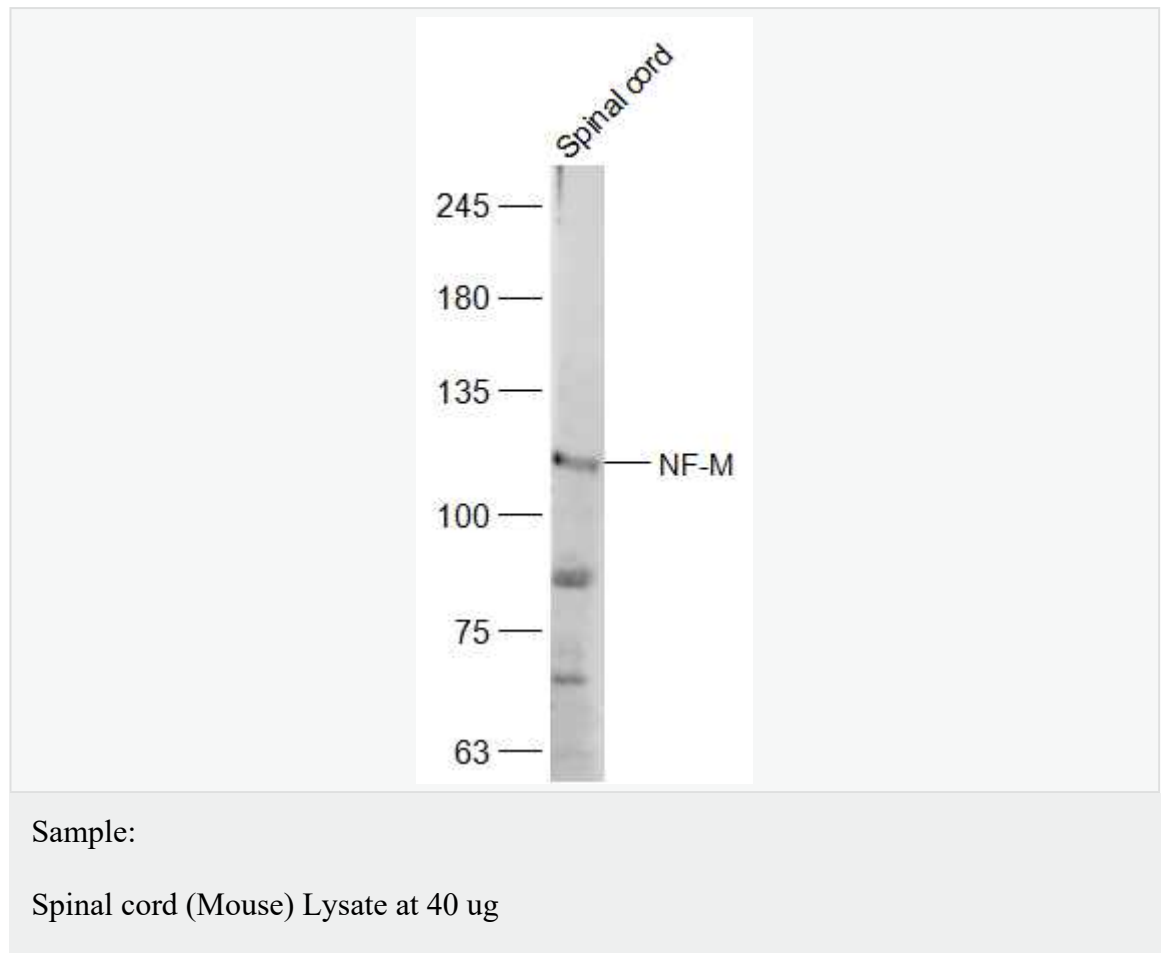
[SwissProt: P08553](#) Mouse

[SwissProt: P12839](#) Rat

[Unigene: 458657](#) Human

[Unigene: 10971](#) Rat

**Product
Picture**

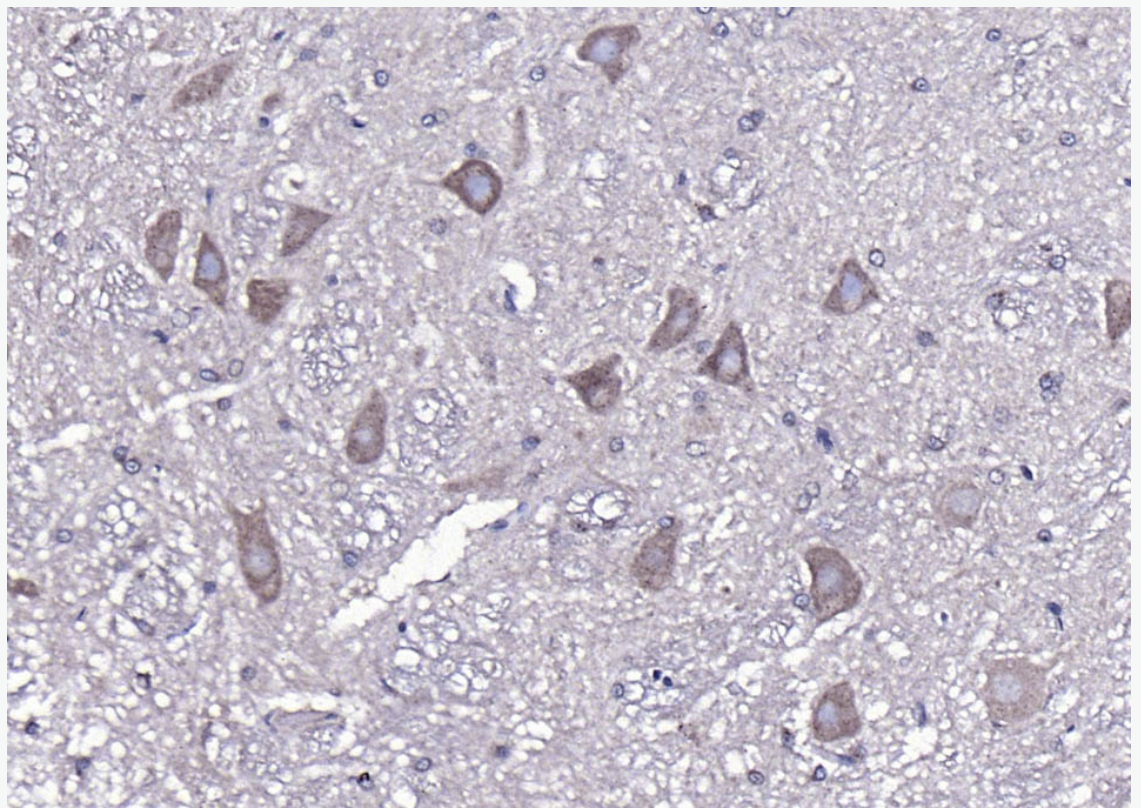


Primary: Anti-NF-M (SL0710R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

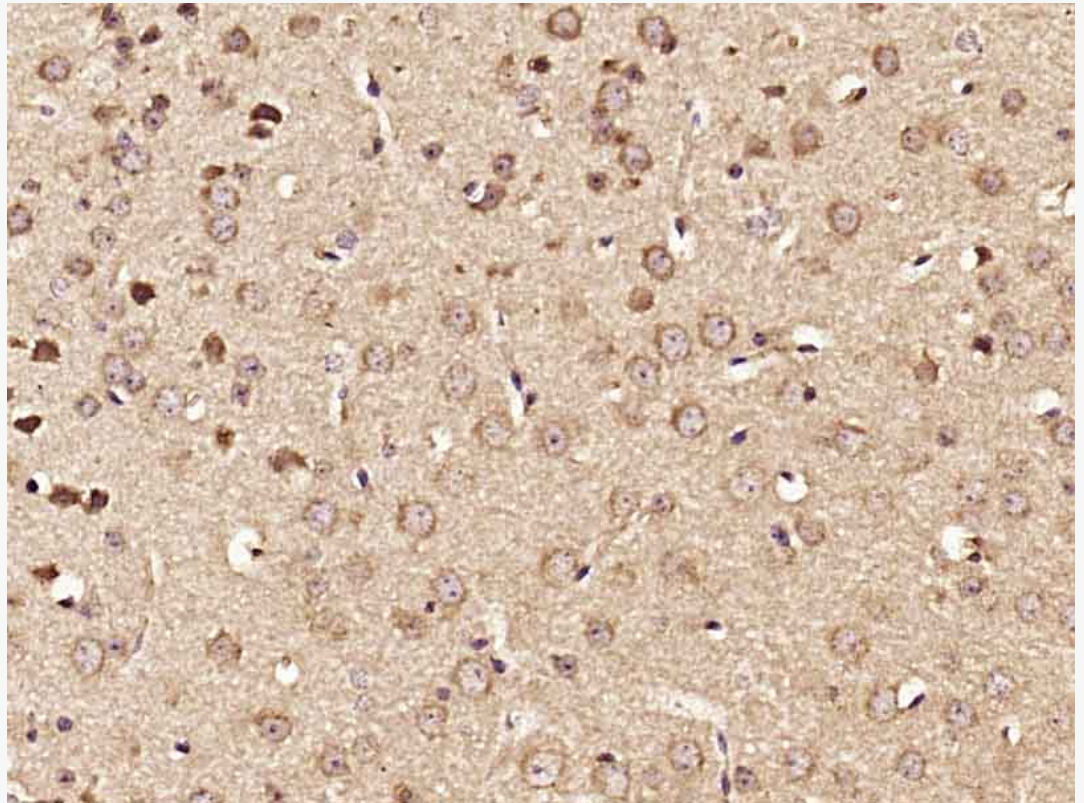
Predicted band size: 102 kD

Observed band size: 112 kD

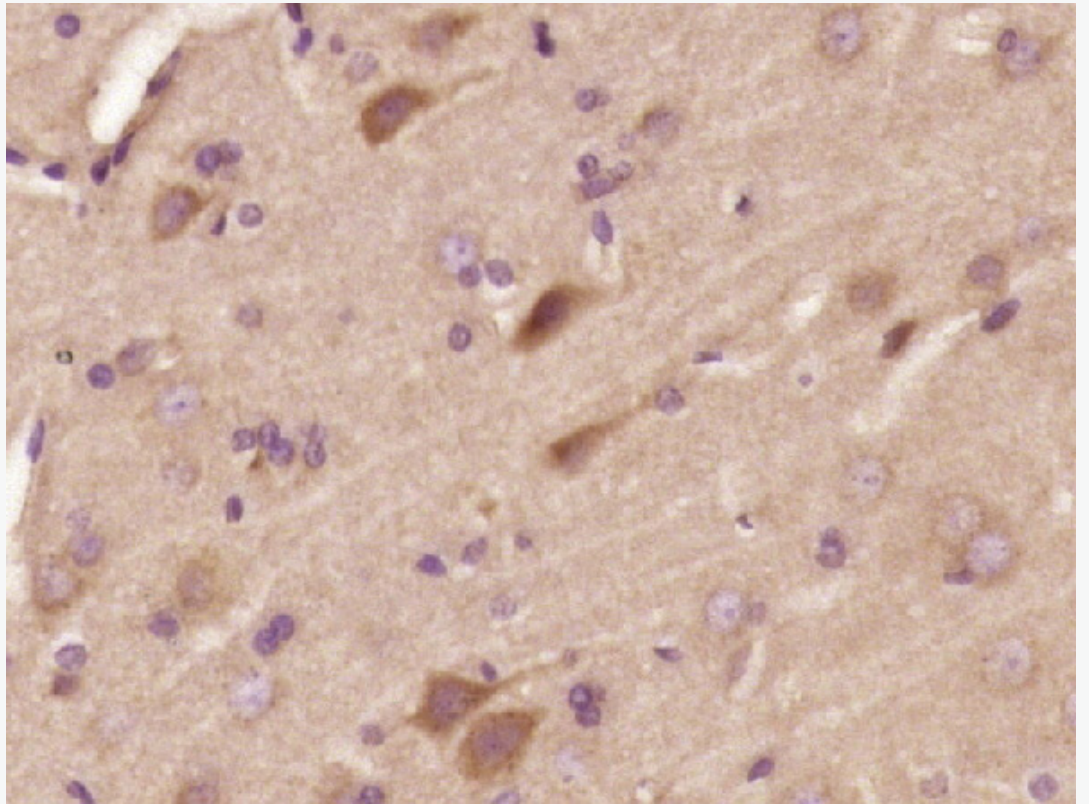


Paraformaldehyde-fixed, paraffin embedded (Cerebellum of rats); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Anti-NF-M) Polyclonal Antibody, Unconjugated (SL0710R) at 1:200 overnight at 4°C, followed by operating according to SP

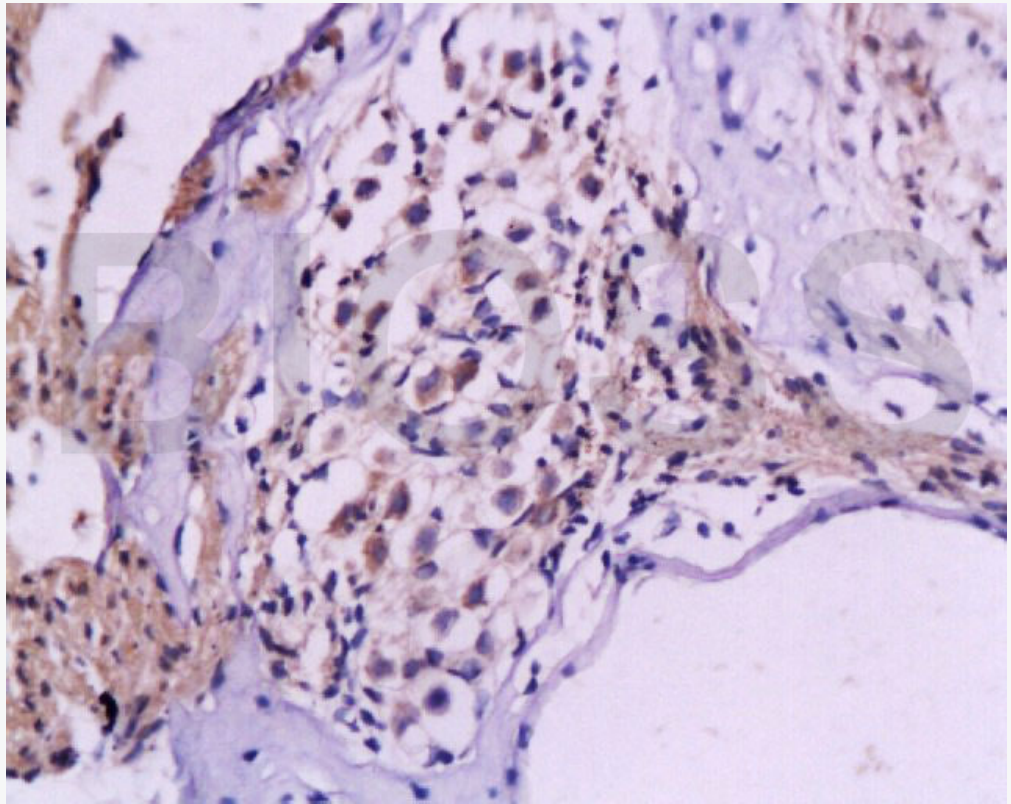
Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NFM) Polyclonal Antibody, Unconjugated (SL0710R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-M) Polyclonal Antibody, Unconjugated (SL0710R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: rat cochlea tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-NF-M/Neurofilament M Polyclonal Antibody,
Unconjugated(SL0710R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining