SunLong Biotech Co.,LTD
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Rabbit Anti-NF-H antibody

SL0708R

Product Name	NF-H
Chinese Name	高分子量神经丝蛋白抗体
Alias	NFH_HUMAN; Neurofilament heavy polypeptide; NEFH; KIAA0845; NFH; NF H; NF200; NF-200; Neurofilament 200; 200 kDa neurofilament protein; Neurofilament triplet H protein; Neurofilament H; Neurofilament heavy polypeptide 200kD;
Research Area	Cell biology Neurobiology Signal transduction Apoptosis transcriptional regulatory factor
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat,
Applications	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	118kDa
Detection molecular weight	200 kDa
Cellular localization	cytoplasmic
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human NF-H: 1-100/1026
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℃. Store at -20 ℃ 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.

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Product Detail

Neurofilaments can be defined as the intermediate or 10nm filaments found in specifically in neuronal cells. When visualised using an electron microscope, neurofilaments appear as 10nm diameter fibres of indeterminate length that generally have fine wispy protrusions from their sides. They are particularly abundant in axons of large projection neurons. They probably function to provide structural support for neurons and their synapses and to support the large axon diameters required for rapid conduction of impulses down axons. Neurofilaments are composed of a mixture of subunits, which usually includes the three neurofilament triplet proteins neurofilament light (NFL), neurofilament medium (NFM) and neurofilament heavy (NFH). Neurofilaments may also include smaller amounts of peripherin, alpha internexin, nestin and in some cases vimentin. Antibodies to the various neurofilament subunits are very useful cell type markers since the proteins are among the most abundant of the nervous system, are expressed only in neurons, and are biochemically very stable. Some studies have shown that levels of neurofilament heavy and neurofilament light are elevated in patients with Alzheimer's disease, frontotemporal lobe dementia, and vascular dementia.

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.

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.

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.

Similarity:

Belongs to the intermediate filament family.

SWISS:
P12036

Gene ID:
4744

Database links:

Entrez Gene: 4744 Human

Entrez Gene: 380684 Mouse

Entrez Gene: 24587 Rat

Omim: 162230 Human

SwissProt: P12036 Human

SwissProt: P19246 Mouse

SwissProt: P16884 Rat

Unigene: 198760 Human

Unigene: 298283 Mouse

Unigene: 108194 Rat

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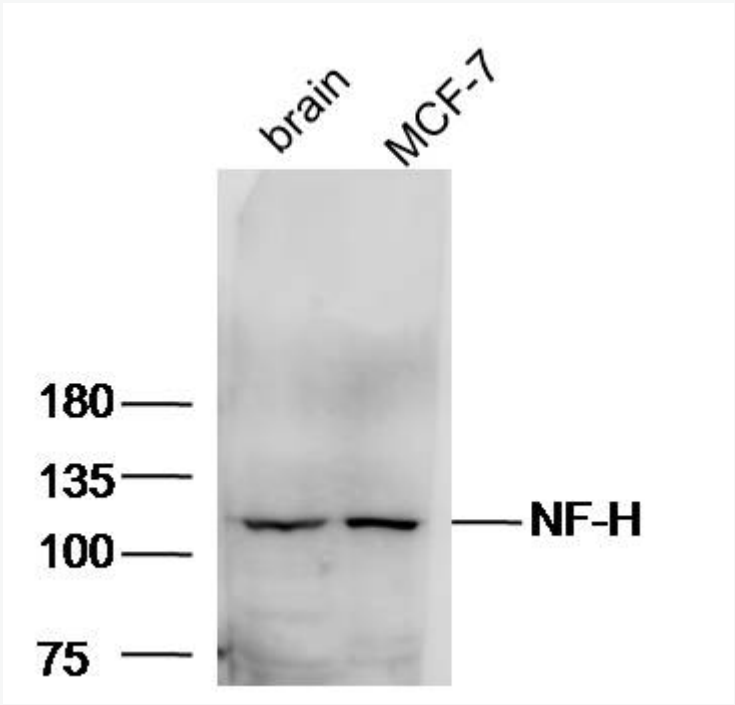
Product Picture



Sample:

Brain (Mouse) Lysate at 30 ug

Mcf-7 Cell Lysate at 30 ug

Primary: Anti- NF-H (SL0708R) at 1/300 dilution

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

Predicted band size: 118 kD

Observed band size: 118 kD

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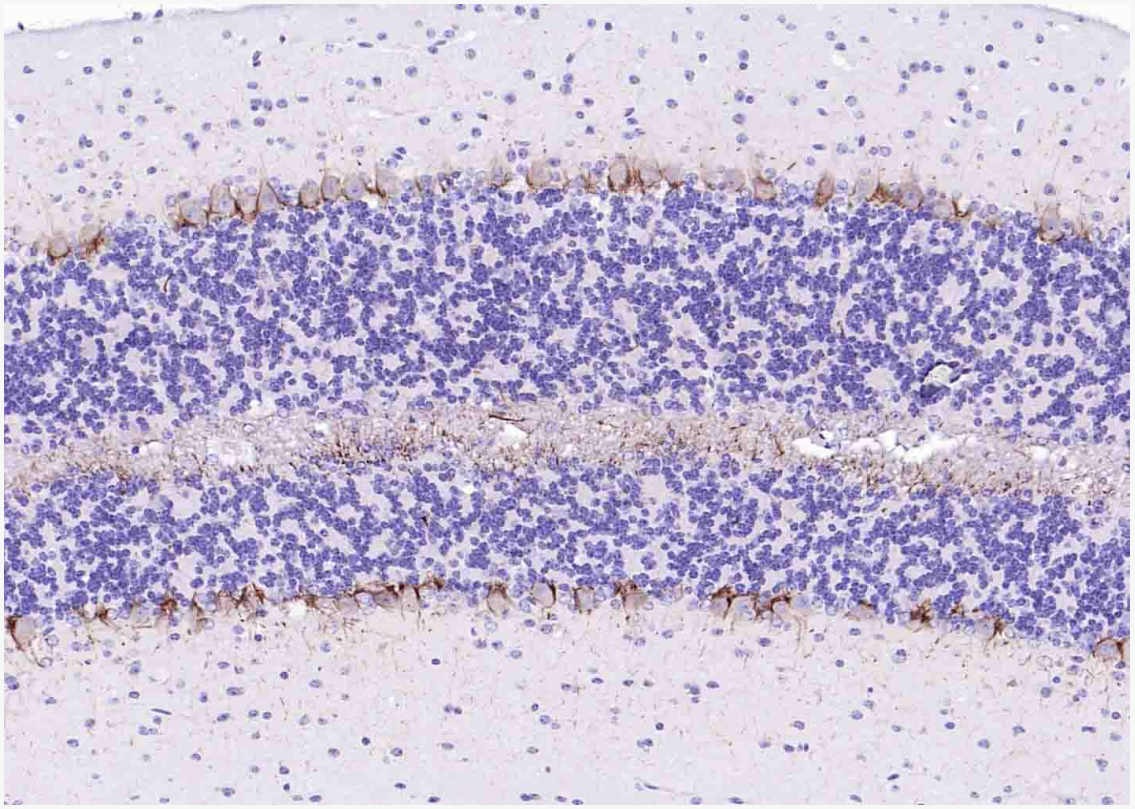

Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-H) Polyclonal Antibody, Unconjugated (SL0708R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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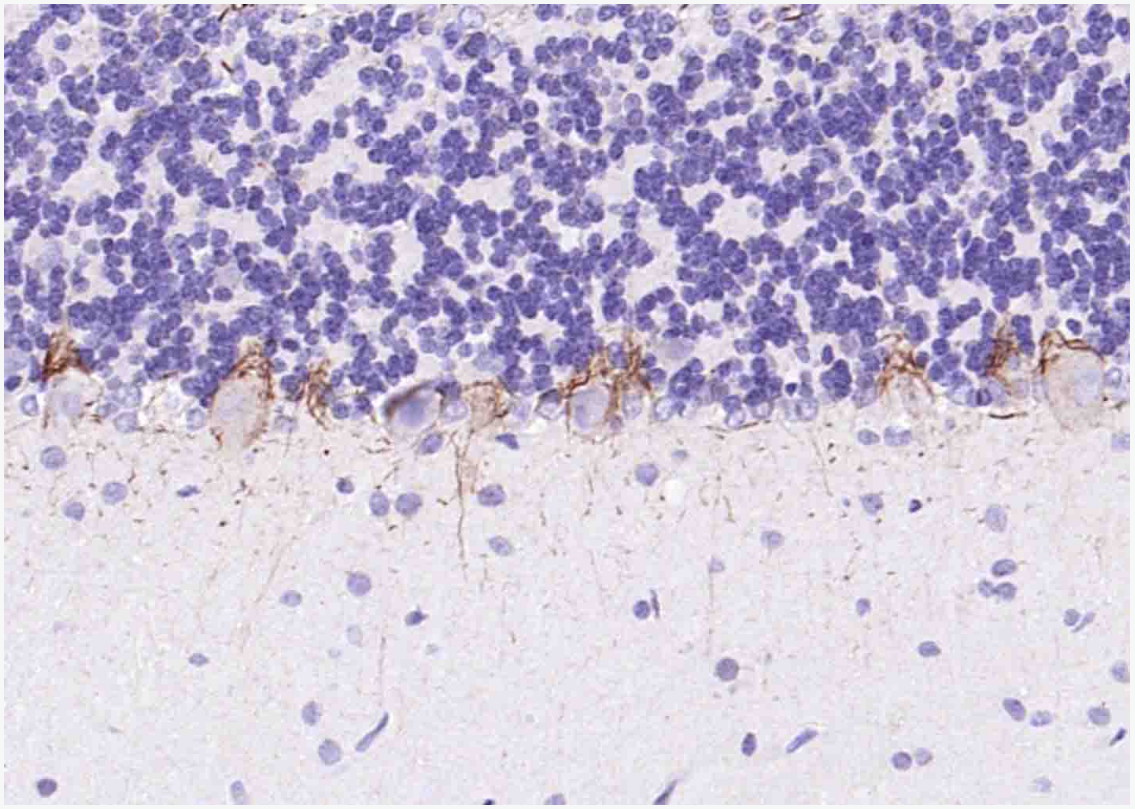

Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-H) Polyclonal Antibody, Unconjugated (SL0708R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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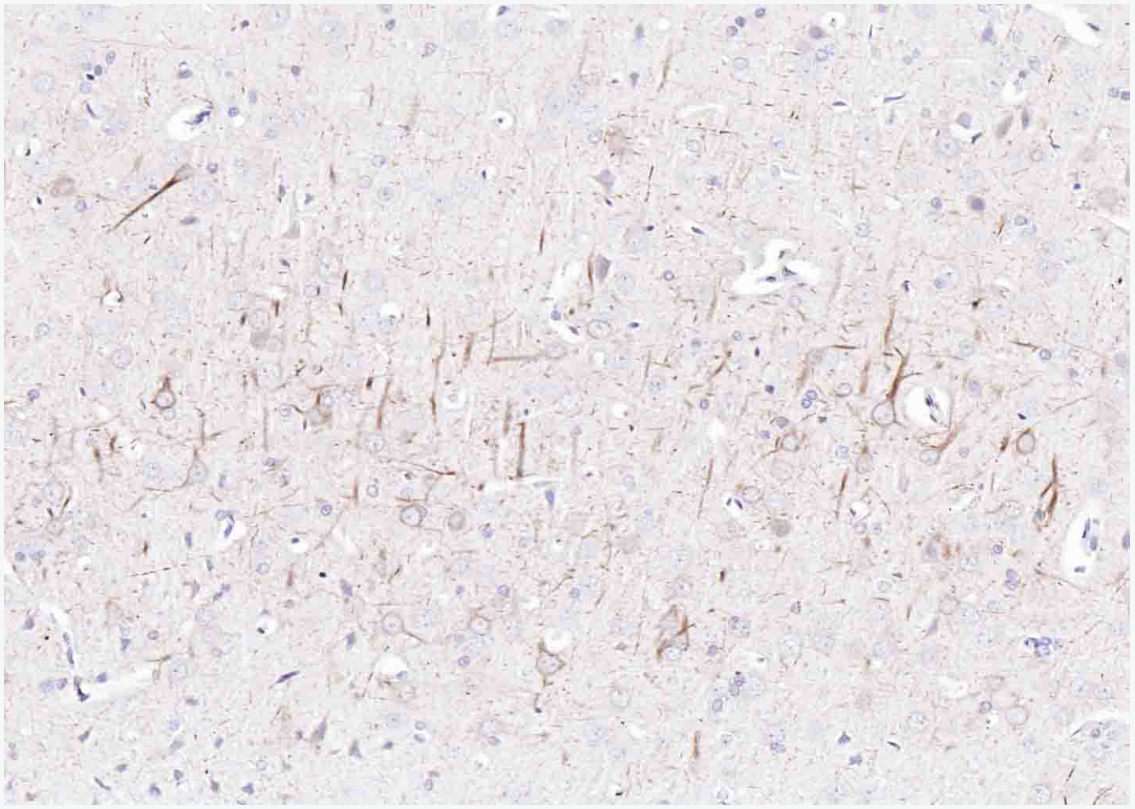

Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-H) Polyclonal Antibody, Unconjugated (SL0708R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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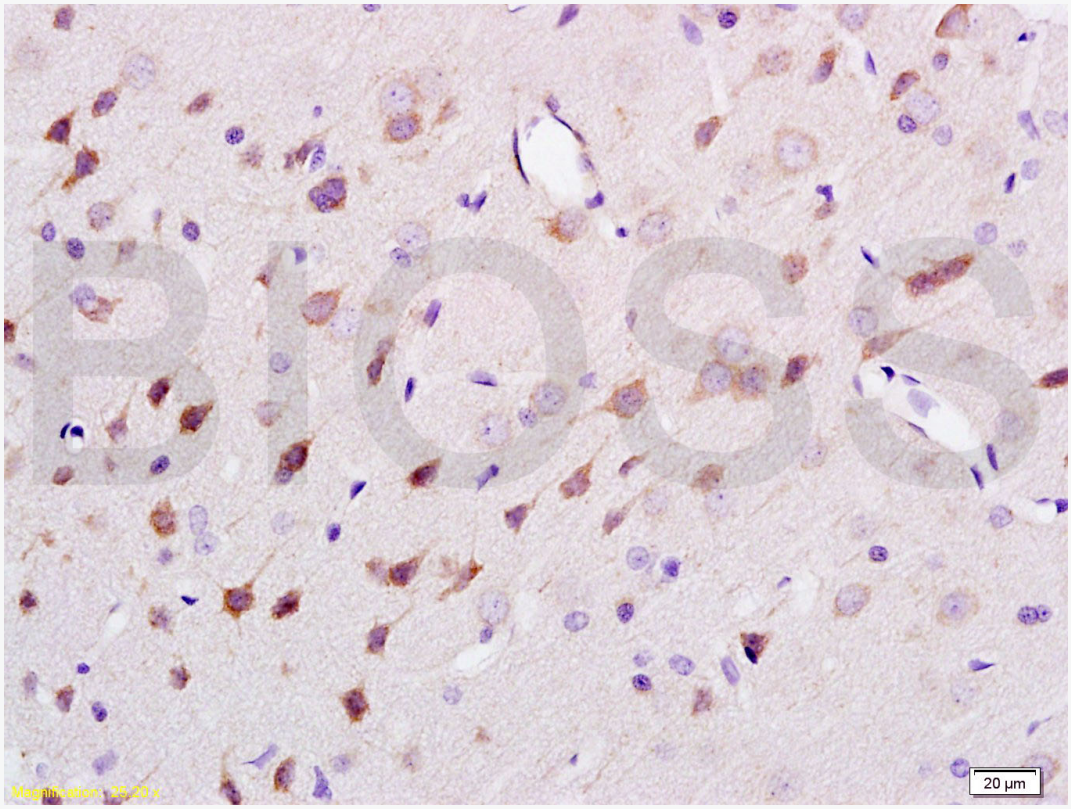
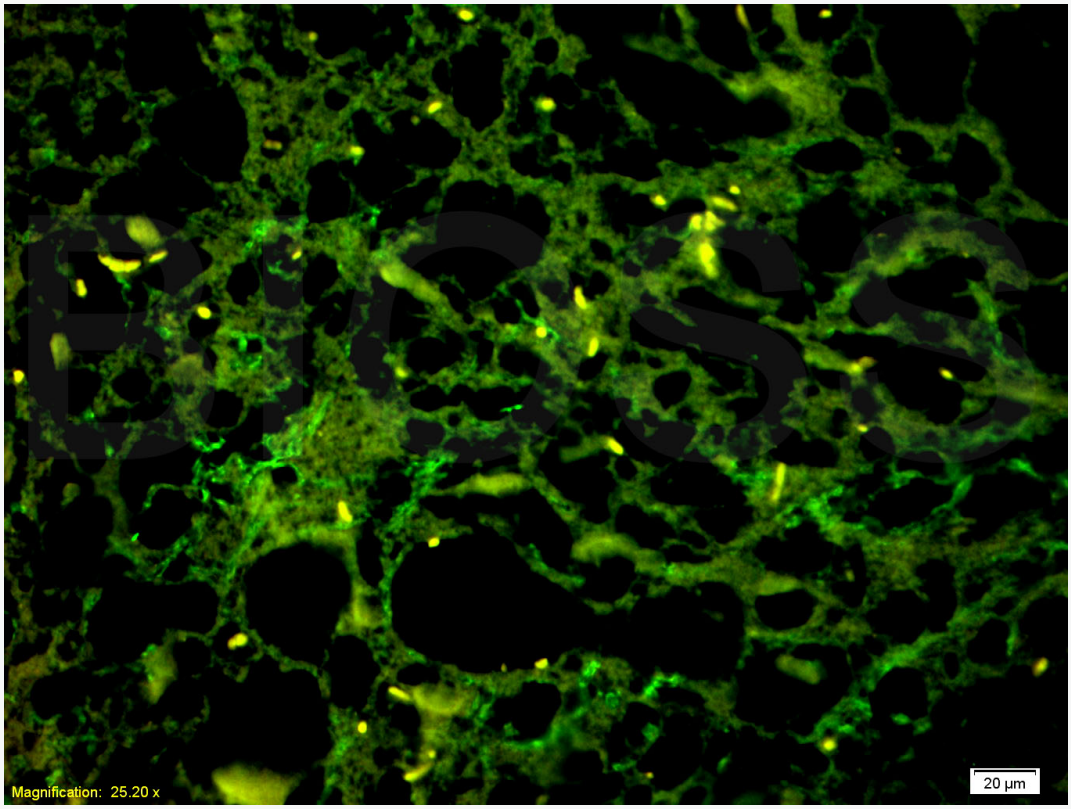


Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

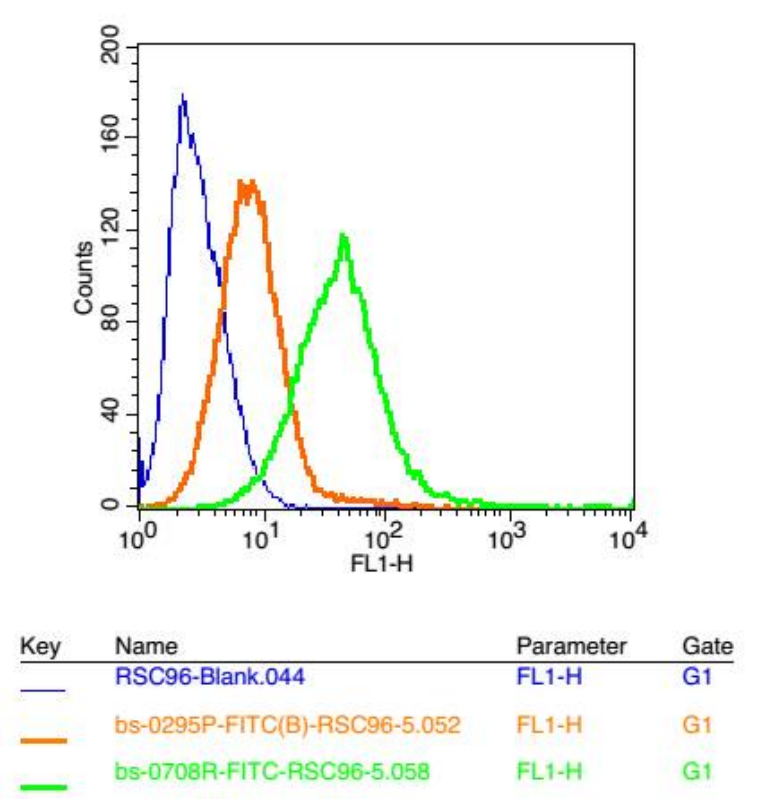
Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-NF-H/Neurofilament H/Neurofilament 200 Polyclonal Antibody, Unconjugated (SL0708R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat spinal cord tissue;4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-NF-H/Neurofilament H/Neurofilament 200 Polyclonal Antibody, Unconjugated (SL0708R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, FITC conjugated(SL0295G-FITC)used at 1:200 dilution for 40 minutes at 37°C.



Positive control: RSC96

Isotype Control Antibody: Rabbit IgG-FITC ; Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 3µg in 100 µL1X PBS containing 0.5% BSA.