

## Mouse Anti-NF-L antibody

SLM-41217M

**Product Name** NF-L

**Chinese Name** 低分子量神经丝蛋白单克隆抗体

**Alias**

Neurofilament L; Neurofilament 68; Neurofilament triplet L; 70 kD Neurofilament Light; 68kDa neurofilament protein; CMT 1F; CMT 2E; CMT1F; CMT2E; FLJ53642; Light molecular weight neurofilament protein; NEFL; Neurofilament light; Neurofilament light polypeptide 68kDa; Neurofilament light polypeptide; Neurofilament protein, light chain; Neurofilament subunit NF L; Neurofilament triplet L protein; NF 68; NF L; NF68; NFL; NFL\_HUMAN.

**Research Area**

Cell biology Neurobiology Signal transduction

**Immunogen Species**

Mouse

**Clonality**

Monoclonal

**React Species**

Mouse,Rat(predicted:Human)

**Applications**

IHC-P=1:200-800,IHC-F=1:200-800,IF=1:200-800 (Paraffin sections need antigen repair)  
not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight**

68kDa

**Cellular localization**

cytoplasmic

**Form**

Liquid

**Concentration**

1mg/ml

**immunogen**

Recombinant human NF-L

**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**

[PubMed](#)

Neurofilament light polypeptide also called NF-L; Neurofilament triplet L protein; 68 kDa neurofilament protein. Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber. The extra mass and high charge density that distinguish the neurofilament proteins from all other intermediate filament proteins are due to the tailpiece extensions. This region may form a charged scaffolding structure suitable for interaction with other neuronal components or ions. NF-L is the most abundant of the three neurofilament proteins and, as the other nonepithelial intermediate filament proteins, it can form homopolymeric 10-nm filaments. Belongs to the intermediate filament family.

**Function:**

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

**Subunit:**

Interacts with ARHGEF28. Interacts with TRIM2.

**Post-translational modifications:**

O-glycosylated.

**Product Detail**

Phosphorylated in the head and rod regions by the PKC kinase PKN1, leading to the inhibition of polymerization.

Ubiquitinated in the presence of TRIM2 and UBE2D1.

**DISEASE:**

Defects in NEFL are the cause of Charcot-Marie-Tooth disease type 1F (CMT1F) [MIM:607734]. CMT1F is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy or CMT1, and primary peripheral axonal neuropathy or CMT2. Neuropathies of the CMT1 group are characterized by severely reduced nerve conduction velocities (less than 38 m/sec), segmental demyelination and remyelination with onion bulb formations on nerve biopsy, slowly progressive distal muscle atrophy and weakness, absent deep tendon reflexes, and hollow feet. CMT1F is characterized by onset in infancy or childhood (range 1 to 13 years). Defects in NEFL are the cause of Charcot-Marie-Tooth disease type 2E (CMT2E) [MIM:607684]. CMT2E is an autosomal dominant form of Charcot-Marie-Tooth disease type 2. Neuropathies of the CMT2 group are characterized by signs of axonal regeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy.

**Similarity:**

Belongs to the intermediate filament family.

**SWISS:**

P07196

**Gene ID:**

4747

**Database links:**

[Entrez Gene: 4747](#) Human

[Entrez Gene: 18039](#) Mouse

[Entrez Gene: 83613](#) Rat

[Omim: 162280](#) Human

[SwissProt: P07196](#) Human

[SwissProt: P08551](#) Mouse

[SwissProt: P19527](#) Rat

[Unigene: 521461](#) Human

[Unigene: 1956](#) Mouse

[Unigene: 18568](#) Rat

**Neurobiology 相关蛋白 (Neurobiology)**

低分子量神经丝蛋白,简称 NF-L,分子量为 68kDa, NF-L 的聚集与神经退行性疾病的发病机理相关, 如运动神经元的降解等。

神经纤丝蛋白的功能是提供弹性使神经纤维易于伸展和防止断裂。

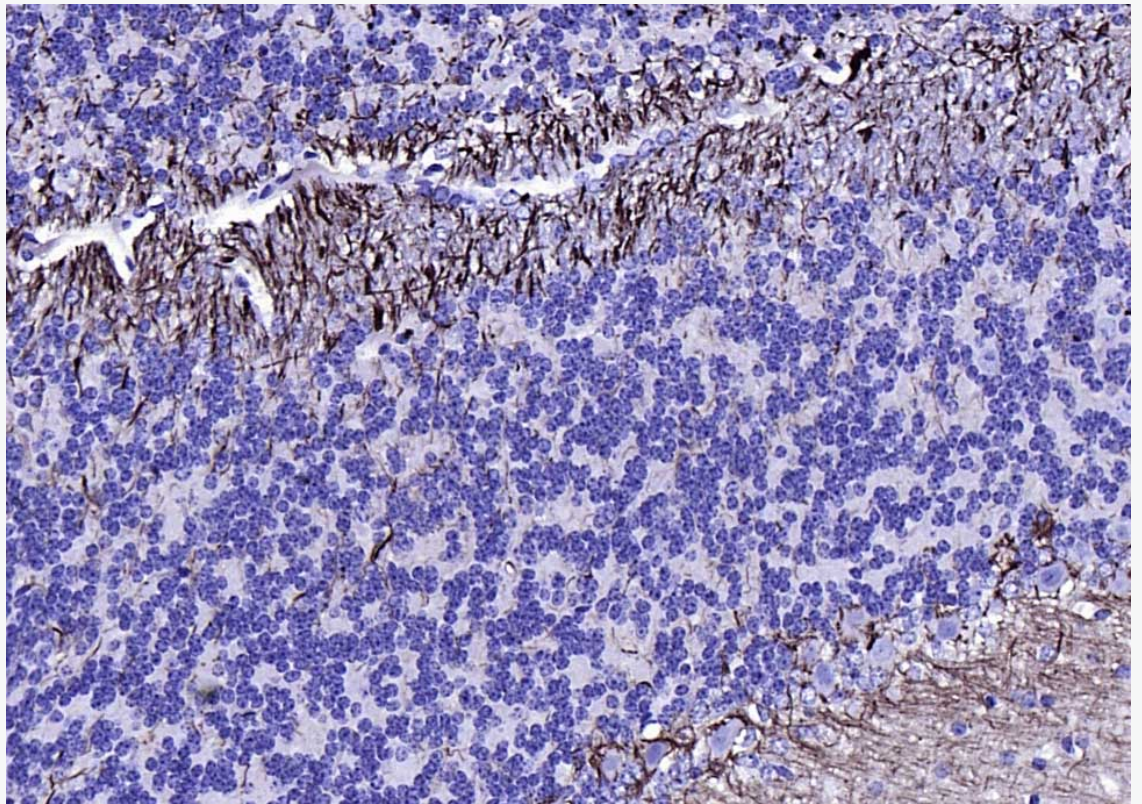
神经丝是中间纤维的一种重要类型又称神经微丝蛋白, 特异地在神经细胞内表达, 并在轴突内相互平行排列成束。 哺乳动物的神经丝由 3 种蛋白组成:

低分子量神经丝蛋白, 简称 NF-L; 分子量为 68kDa;

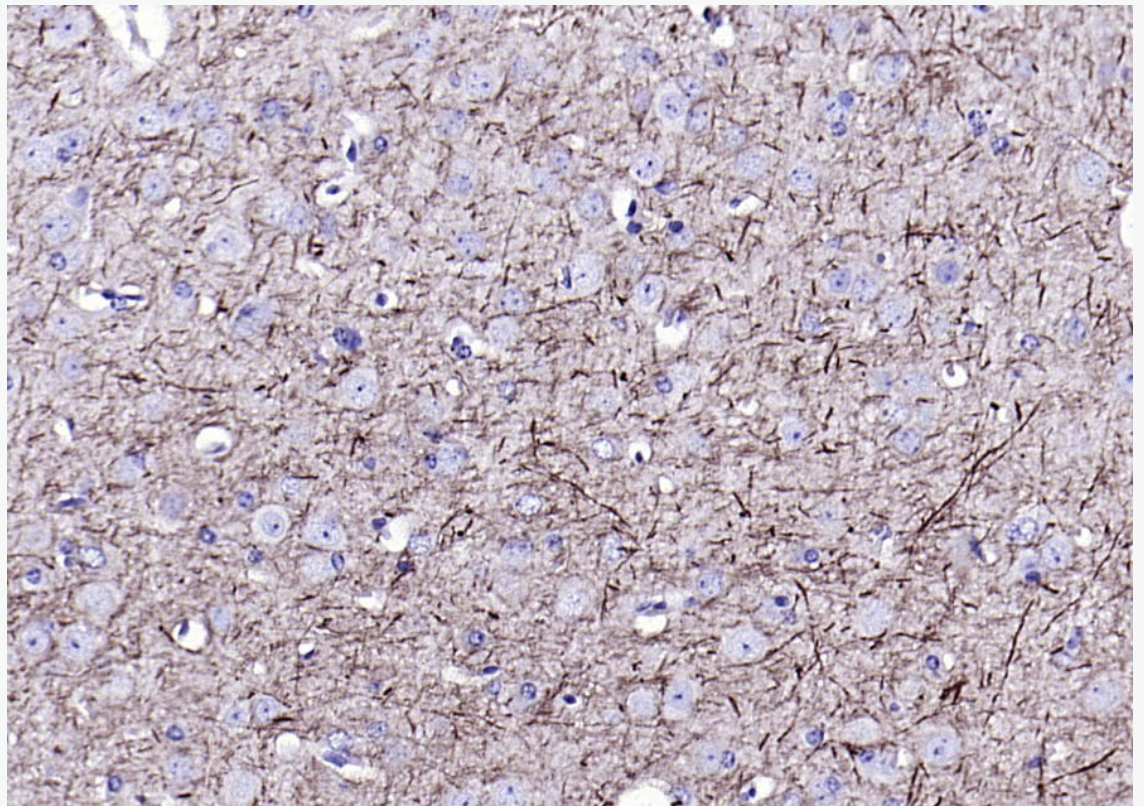
中分子量神经丝蛋白, 简称 NF-M; 分子量为 160kDa;

高分子量神经丝蛋白, 简称 NF-H, 分子量为 200 kDa。

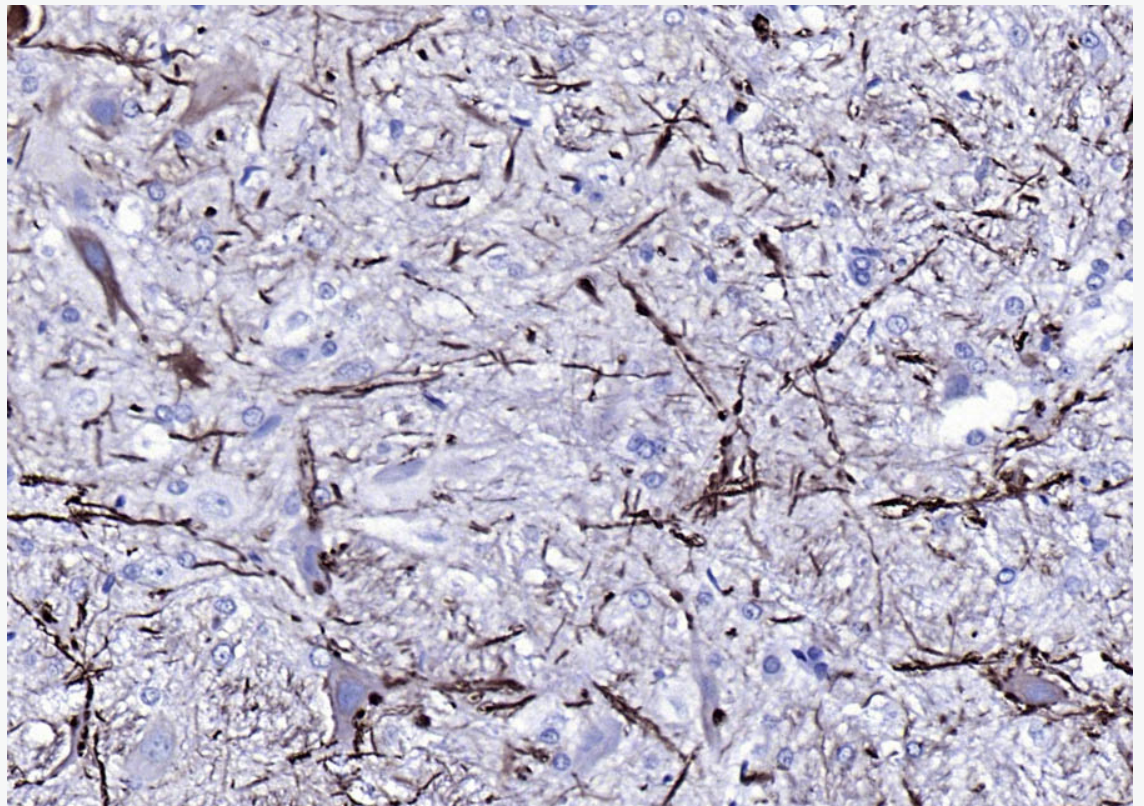
**Product  
Picture**



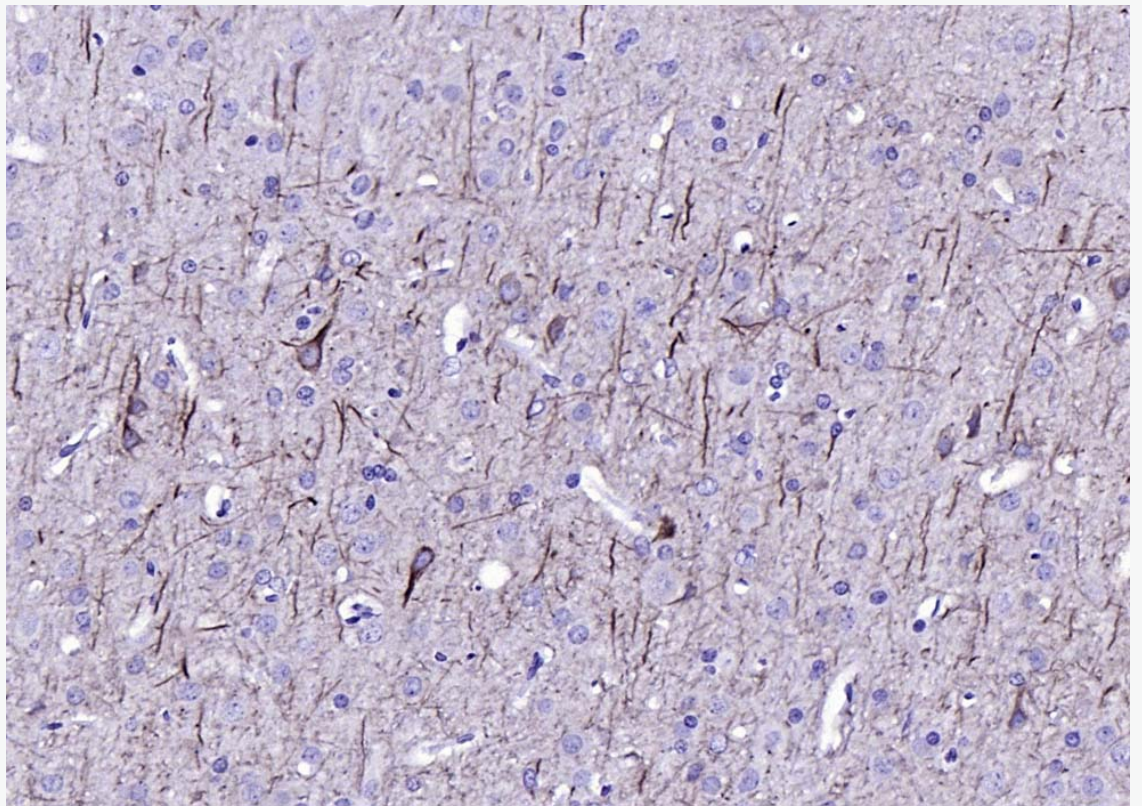
Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-L) Monoclonal Antibody, Unconjugated (SLM-41217M) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Mouse)(sp-0024) instructions and DAB staining.



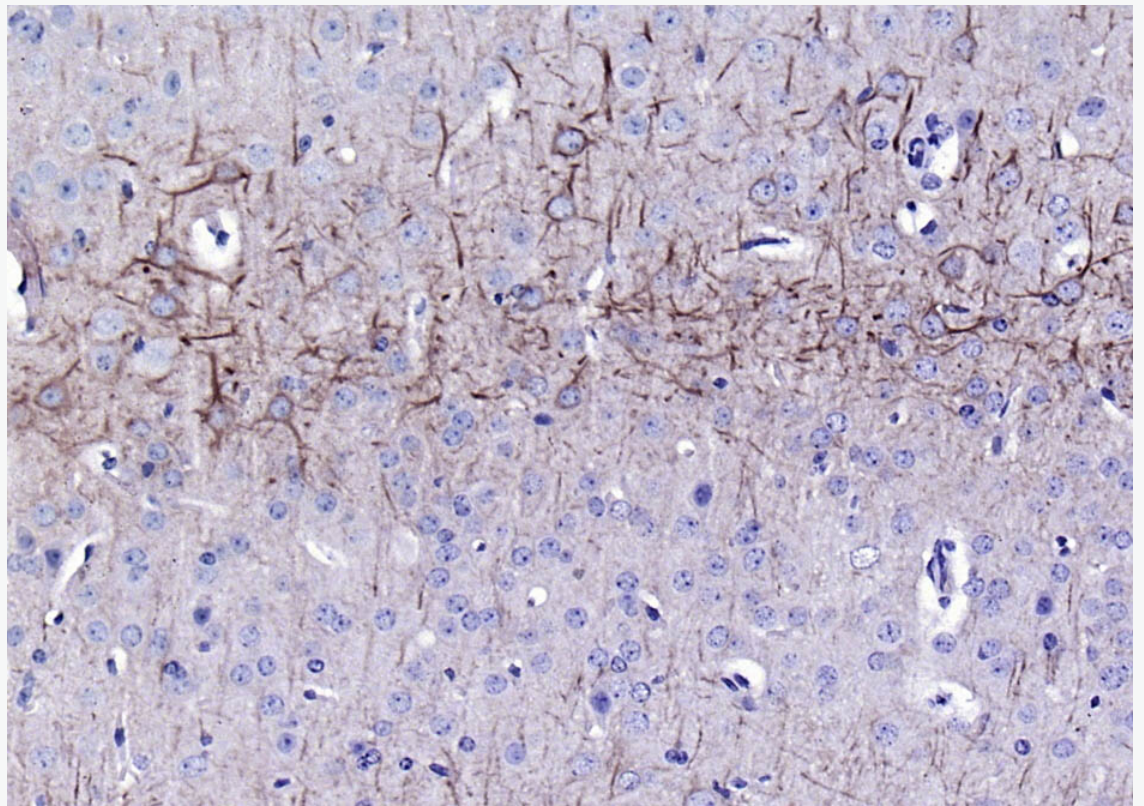
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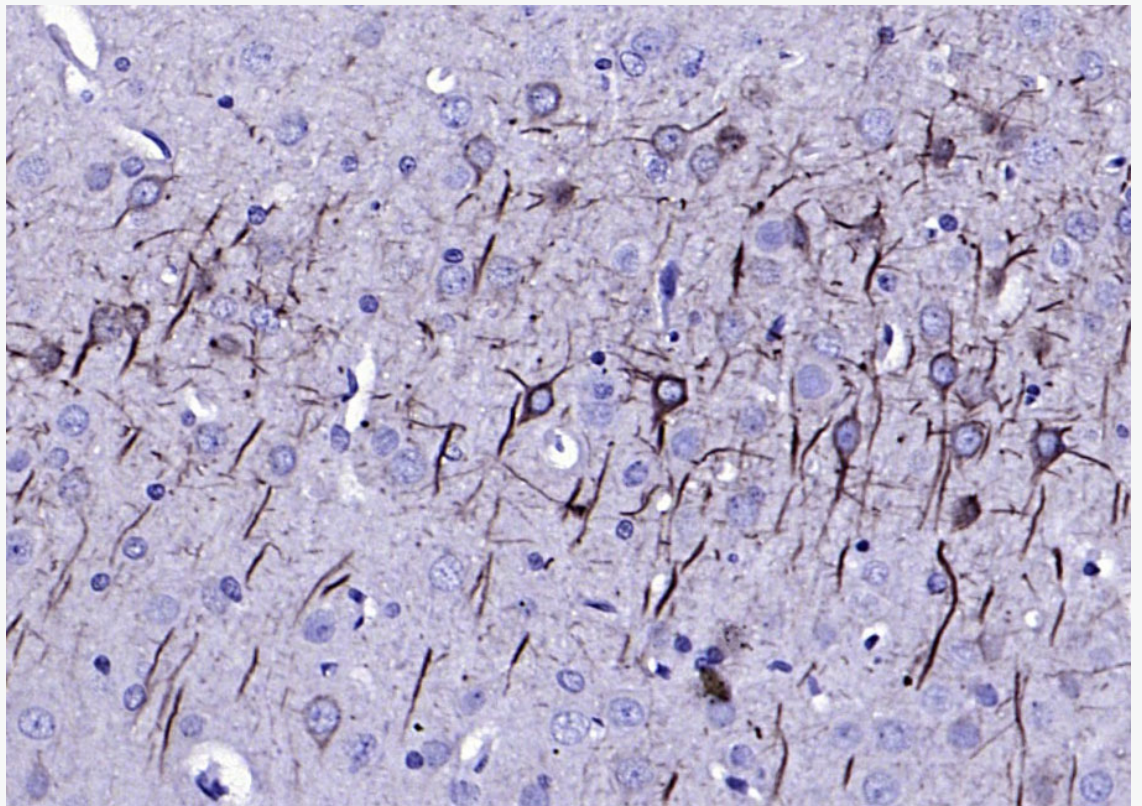
Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-L) Monoclonal Antibody, Unconjugated (SLM-41217M) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Mouse)(sp-0024) instructions and DAB staining.



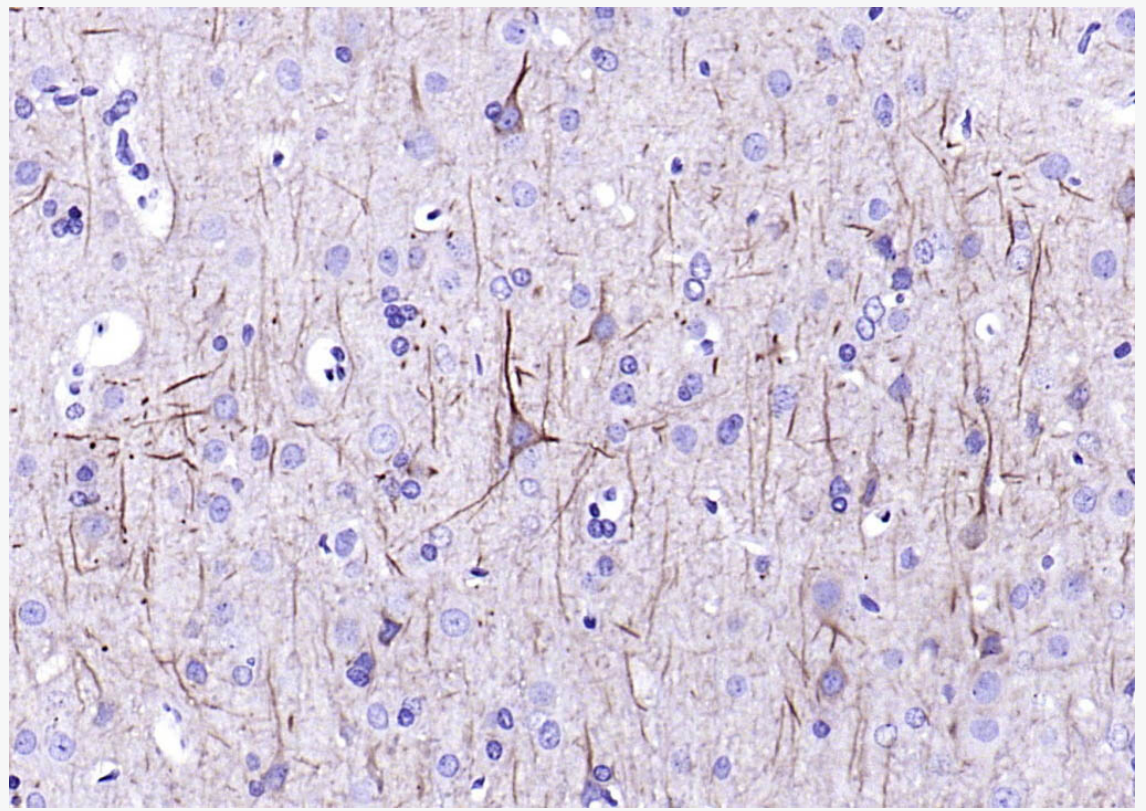
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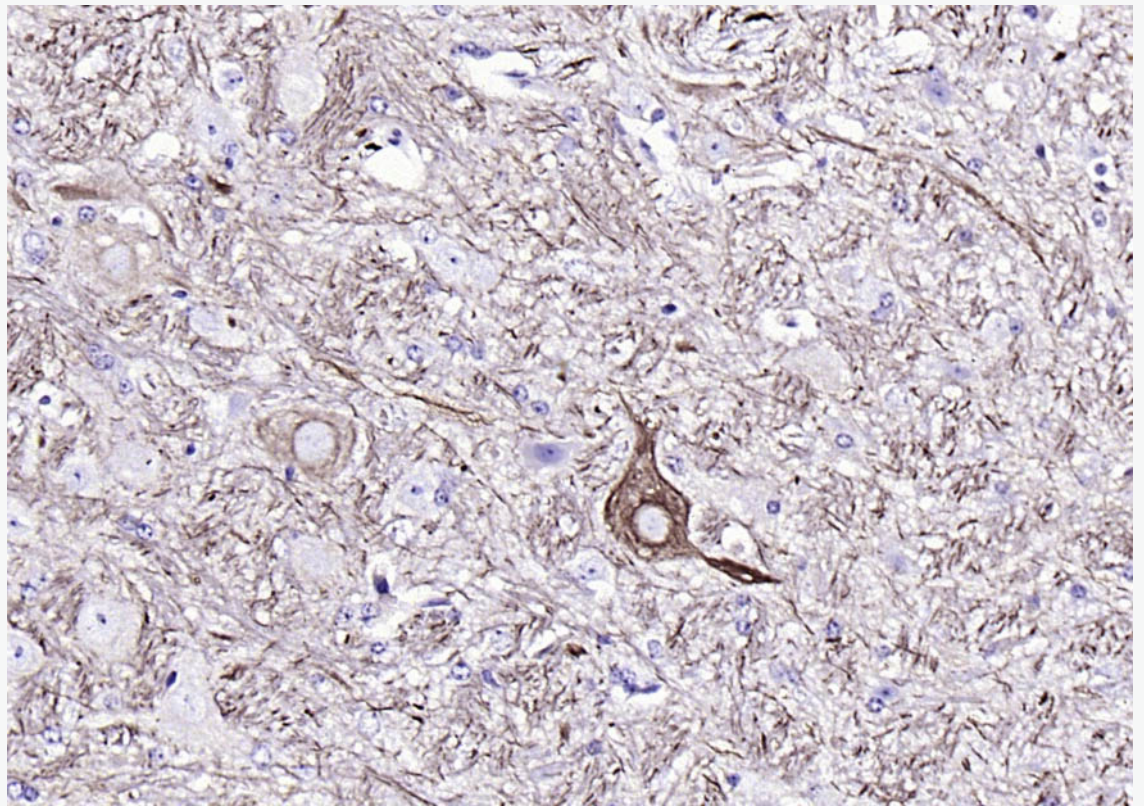
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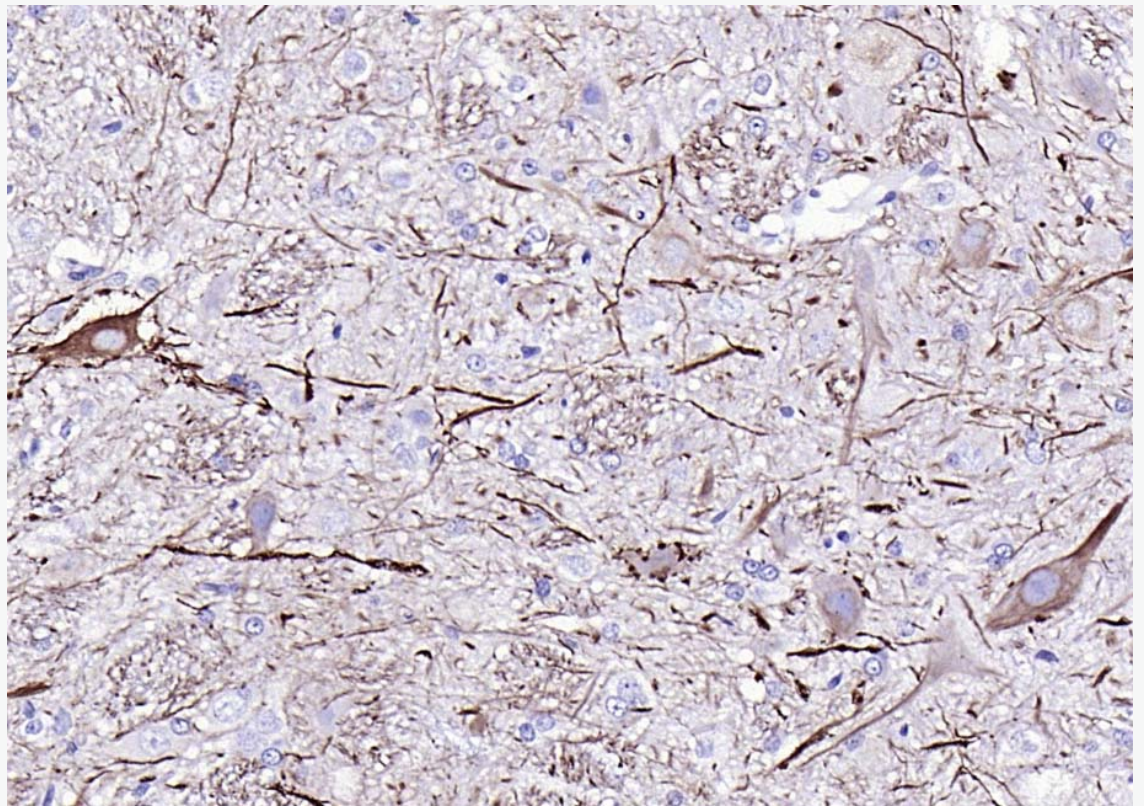
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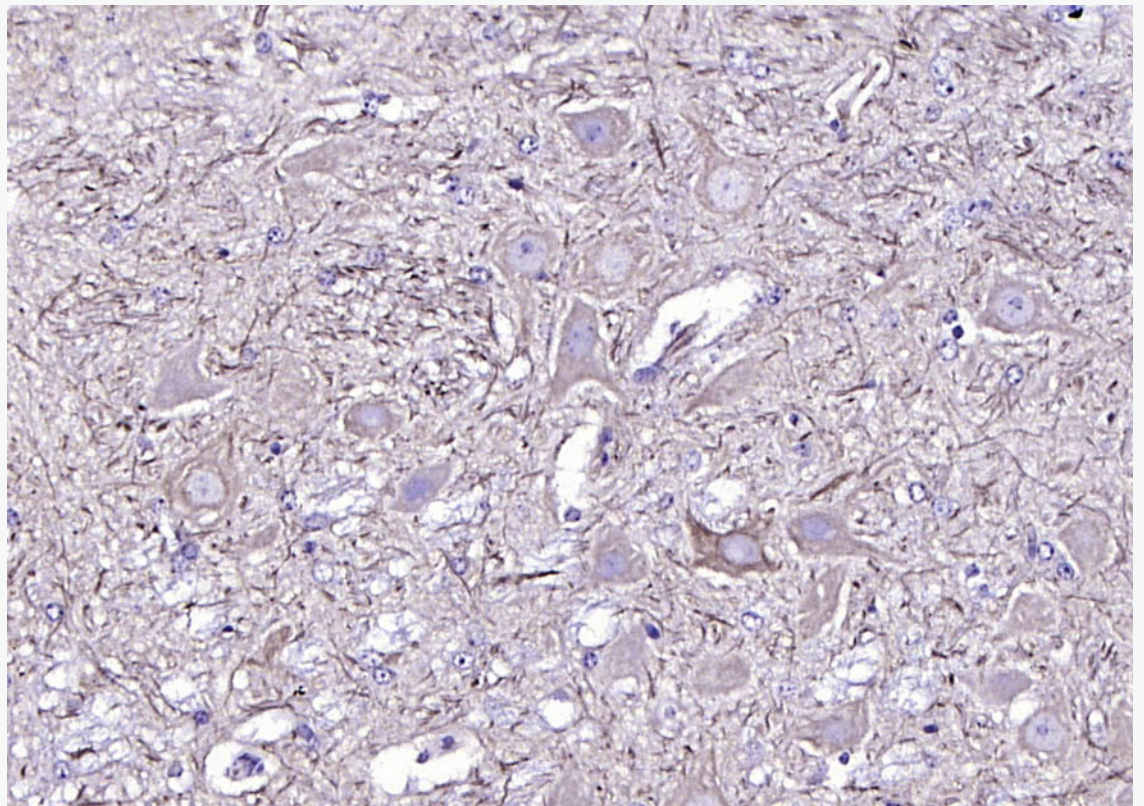
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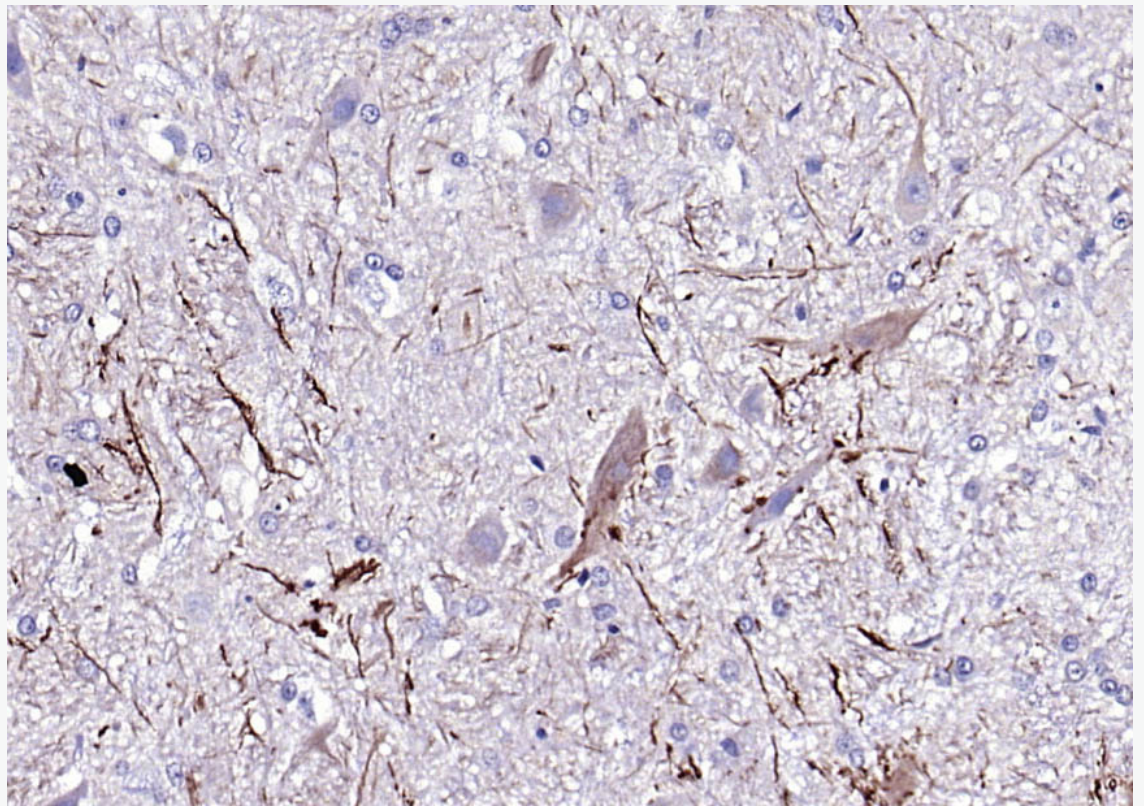
Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NF-L) Monoclonal Antibody, Unconjugated (SLM-41217M) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Mouse)(sp-0024) instructions and DAB staining.



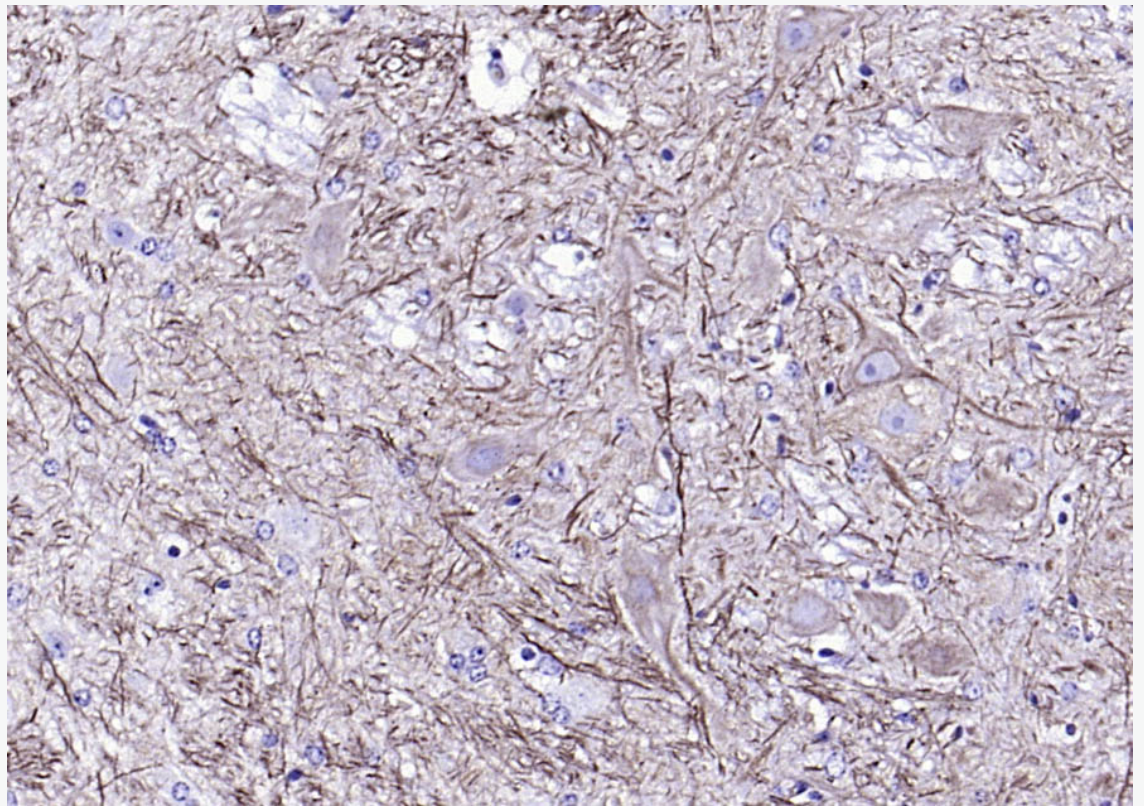
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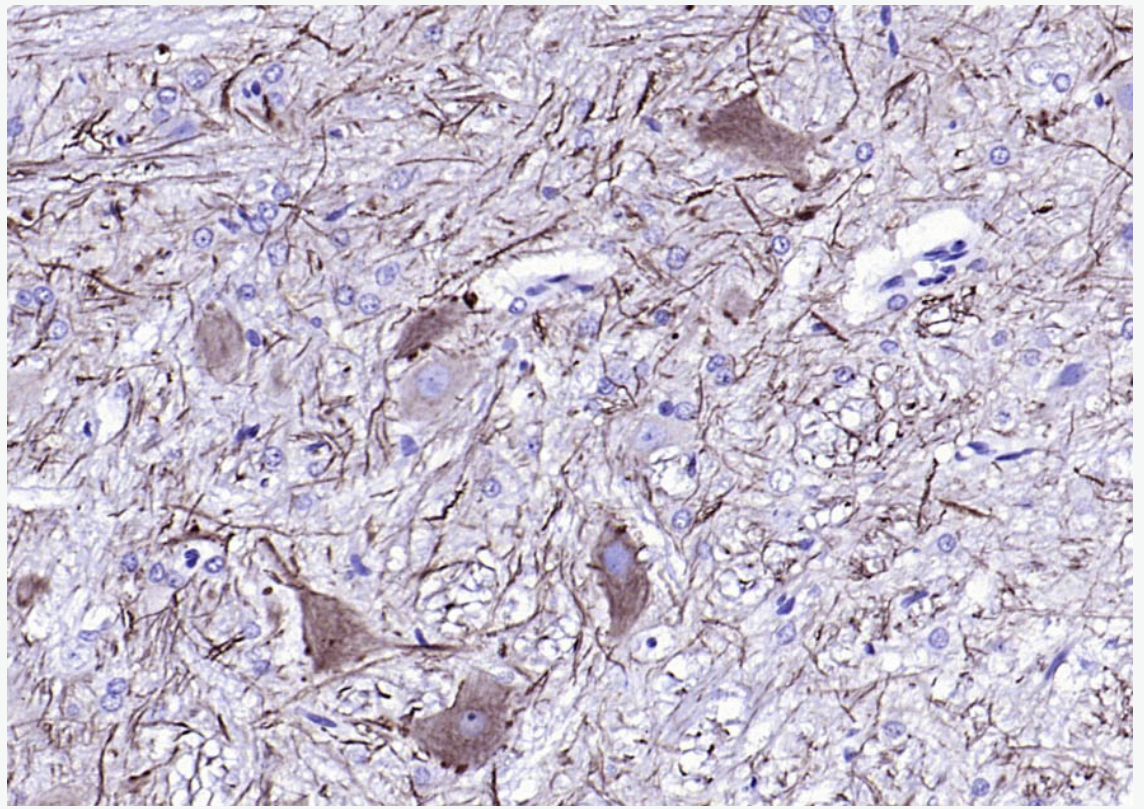
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