

For Research Use Only

# NF-L Polyclonal antibody

Catalog Number: 12998-1-AP **20 Publications**



## Basic Information

|  |   |  |
|--|---|--|
| <b>Catalog Number:</b><br>12998-1-AP       | <b>GenBank Accession Number:</b><br>BC039237          | <b>Purification Method:</b><br>Antigen affinity purification |
| <b>Size:</b><br>600 µg/ml                  | <b>GeneID (NCBI):</b><br>4747                         | <b>Recommended Dilutions:</b><br>WB 1:2000-1:16000           |
| <b>Source:</b><br>Rabbit                   | <b>UNIPROT ID:</b><br>P07196                          | IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate         |
| <b>Isotype:</b><br>IgG                     | <b>Full Name:</b><br>neurofilament, light polypeptide | IHC 1:1000-1:4000  |
| <b>Immunogen Catalog Number:</b><br>AG3667 | <b>Calculated MW:</b><br>543 aa, 62 kDa               | IF 1:200-1:800   |
|  | <b>Observed MW:</b><br>65-68 kDa, 140-160 kDa         |  |

## Applications

|   |   |
|---|---|
| <b>Tested Applications:</b><br>FC, IF/ICC, IF-P, IHC, IP, WB, ELISA | <b>Positive Controls:</b><br>WB : SH-SY5Y cells, Neuro-2a cells, mouse brain tissue, C6 cells |
| <b>Cited Applications:</b><br>IF, IHC, IP, WB                       | IP : mouse brain tissue,  |
| <b>Species Specificity:</b><br>human, mouse, rat                    | IHC : mouse brain tissue,   |
| <b>Cited Species:</b><br>human, rat, mouse                          | IF : SH-SY5Y cells, mouse brain tissue  |

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Background Information

NEFL, also named as NF68 and NF-L, belongs to the intermediate filament family. Neurofilaments are the 10 nm intermediate filaments found specifically in neurons. They are a major component of the cell's cytoskeleton, and provide support for normal axonal radial growth. Neurofilaments usually contain three intermediate filament proteins: L, M, and H, which are involved in the maintenance of neuronal caliber. The names given to the three major neurofilament subunits are based upon the apparent molecular weight of the mammalian subunits on SDS-PAGE: NF-L, 65-68 kDa; NF-M, 145-160 kDa and NF-H, 200-220 kDa. This antibody is specific to NEFL. It has a very weak reaction to NEFM.

## Notable Publications

| Author          | Pubmed ID | Journal                 | Application |
|-----------------|-----------|-------------------------|-------------|
| Xiaoyin Liu     | 36246376  | Front Bioeng Biotechnol | IF          |
| Brendan P Major | 33117257  | Front Neurol            |             |
| Fei Yin         | 25374587  | Neural Regen Res        | WB          |

## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

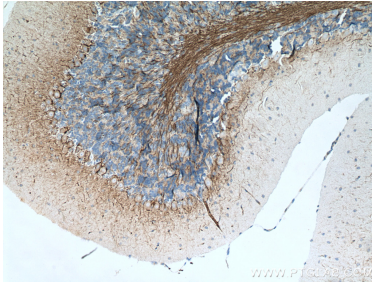
T: 4006900926

E: Proteintech-CN@ptglab.com

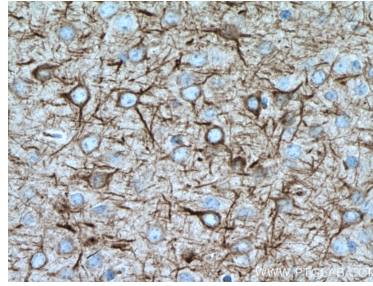
W: ptgcn.com

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

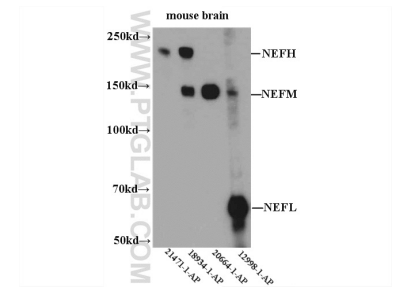
## Selected Validation Data



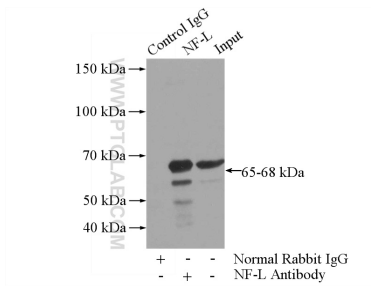
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12998-1-AP (NF-L antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



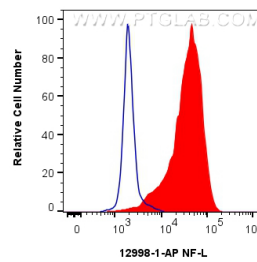
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 12998-1-AP (NF-L antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



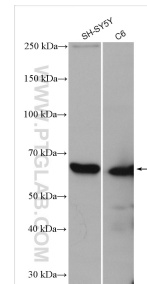
WB result of 12998-1-AP.



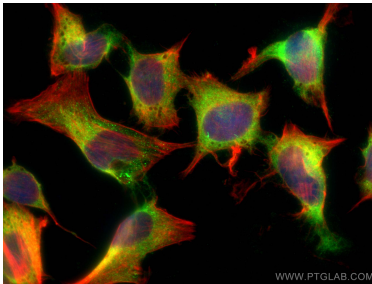
IP result of anti-NF-L (IP:12998-1-AP, 4ug; Detection:12998-1-AP 1:1000) with mouse brain tissue lysate 4000ug.



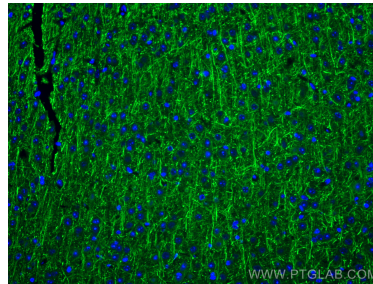
$1 \times 10^6$  SH-SY5Y cells were intracellularly stained with 0.4 ug Anti-Human NF-L (12998-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



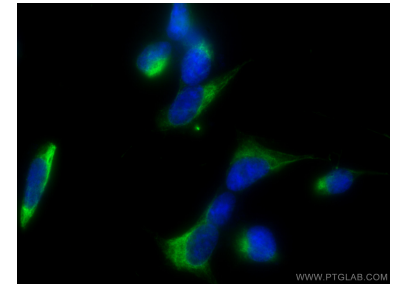
Various lysates were subjected to SDS PAGE followed by western blot with 12998-1-AP (NF-L antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed SH-SY5Y cells using NF-L antibody (12998-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using NF-L antibody (12998-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed SH-SY5Y cells using NF-L antibody (12998-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).