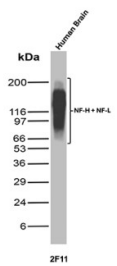
# Neurofilament Antibody 2F11 / Heavy and Light Neurofilament Marker [clone 2F11] (V8304)

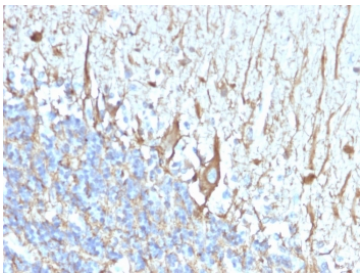
| Catalog No. | Formulation | Size |
|---|---|---|
| V8304-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V8304-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V8304SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

## Bulk quote request

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Monoclonal (mouse origin) |
| **Isotype** | Mouse IgG1, kappa |
| **Clone Name** | 2F11 |
| **Purity** | Protein G affinity chromatography |
| **UniProt** | P12036 |
| **Localization** | Cytoplasmic |
| **Applications** | Western blot: 1-2ug/ml<br>Immunohistochemistry (FFPE): 1-2ug/ml |
| **Limitations** | This Neurofilament Antibody 2F11 / Heavy and Light Neurofilament Marker is available for research use only. |




Neurofilament Antibody 2F11 in Human Brain WB. Western blot testing of human brain lysate with Neurofilament Antibody / Heavy and Light Neurofilament Marker. Clone 2F11 detects bands at approximately 200 kDa and 68 kDa, corresponding to the heavy (NF-H) and light (NF-L) neurofilament proteins, respectively. This dual-band detection demonstrates recognition of both heavy and light neurofilament subunits in human brain tissue.



Neurofilament Antibody 2F11 in Human Cerebellum IHC. Immunohistochemistry staining of FFPE human cerebellum tissue with Neurofilament Antibody / Heavy and Light Neurofilament Marker. HIER was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. The observed staining highlights neurofilament-positive neuronal structures within the human cerebellum.

## Description

Neurofilament Antibody 2F11 / Heavy and Light Neurofilament Marker detects both heavy and light neurofilament proteins, major components of the neuronal intermediate filament cytoskeleton. Neurofilaments are highly abundant in neurons and particularly prominent within axons, where they provide structural support and contribute to the maintenance of axonal caliber and architecture. Detection of multiple neurofilament subunits provides a broad approach to visualizing neuronal structures and investigating nervous system organization.

Neurofilaments are assembled primarily from light, medium and heavy subunits, commonly designated NF-L, NF-M and NF-H. NF-L, encoded by the NEFL gene, has an apparent molecular weight of approximately 68 kDa and provides an important foundation for neurofilament assembly. NF-H, encoded by NEFH, has an apparent molecular weight of approximately 200 kDa and contains an extended C-terminal tail that undergoes extensive phosphorylation. Together, neurofilament subunits form stable intermediate filament networks that support the specialized morphology of neuronal processes.

Neurofilament proteins are widely used as neuronal markers in neuroscience, neurodevelopment and neuropathology. Their abundance within axons makes neurofilament staining useful for examining neuronal differentiation, axonal growth and nervous system architecture. Neurofilament expression can also help characterize cells and tissues exhibiting neuronal or neuroendocrine differentiation, including neural-derived tumors and experimental models of nervous system development.

Changes in neurofilament expression, organization and transport can accompany neuronal injury and neurodegeneration. Disruption of normal neurofilament networks can affect axonal integrity, while release or accumulation of neurofilament proteins is associated with neuroaxonal damage. Both heavy and light neurofilament proteins are therefore investigated in studies of neurodegenerative and neuroinflammatory disorders, traumatic nervous system injury and mechanisms affecting neuronal cytoskeletal stability.

Clone 2F11 is a mouse monoclonal antibody that recognizes the approximately 200 kDa heavy and 68 kDa light neurofilament proteins. This dual recognition distinguishes 2F11 from antibodies directed against an individual neurofilament subunit and supports broader detection of neurofilament-positive neuronal structures. NSJ Bioreagents supplies antibodies for neuroscience and neural marker research. A Neurofilament Antibody can be used to investigate neuronal differentiation, axonal architecture, neurofilament organization and changes associated with neuronal injury and disease.

For related reagents used to investigate neurons, axonal structure and nervous system biology, explore our Neuroscience Antibodies page.

## Application Notes

Optimal dilution of the Neurofilament Antibody 2F11 / Heavy and Light Neurofilament Marker should be determined by the researcher.

## Immunogen

Human NF-H from isolated brain cells was used as the immunogen for this Neurofilament Antibody 2F11.

## Storage

Store the Neurofilament Antibody 2F11 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

## Alternate Names

Neurofilament antibody, Heavy and Light Neurofilament Marker antibody, NF-H and NF-L antibody, Neurofilament Heavy and Light antibody, Pan-Neurofilament antibody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