

## Product description

Neurofilament light chain (NFL) is one of the components of the neurofilaments, supramolecular structures found in the cytoplasm of the neurons.

Labelled NFL is a recombinant protein, stable isotope labelled (SIL), designed for use as an internal standard for quantitative analysis of NFL by mass spectrometry (MS).

**Synonyms:** Neurofilament triplet L protein



**Product name** Human NFL SIL-protein



**Catalog number** NF169531

**Uniprot ID** P07196

## Protein sequence

MSSFSYEPYYSTSYKRRYVETPRVHISSVRSYGYSTARSAYSSYSAPVSSSLVRRSYSSSSGSLMPLENLDLSQVAAISNDLKSIRTQEKAQLQDLN DRFASFIERVHELEQQNKVLEALLVLRQKHSEPSRFRALYEQEIIDLRLAAEDATNEKQALQGEREGLEETLRNLQARYEEEEVLSREDAEGRML EARKGADEAALARAELEKRIDSLMDEISFLKKVHEEEIAELQAAQIQYQISVEMDVTKPDLSAALKDIRAQYEKLAAKNMQNAEEWFKSRFTVL TESAAKNTDAVRAAKDEVSESRLLKAKTLEIEACRGMNEALEKQLQELEDKQNADISAMQDTINKLENELRTTKSEMARYLKEYQDLLNVKM ALDIEIAAYRKLLGEETRLSFTSVGSITSQSSQVFGRSAYGGLQTSSYLMSTRSFPYTTSHVQEEQIEVEETIEAAKAAEKDEPPSEGEAEE EEKDKKEAEAAAAEEEEAAKEESEEAKEEEEEGGEGEGEEETKEAEKKVEGAGEEQAAKKKD

## Product features and protocols

### Key features

- 1** Purity >95% as determined by SDS-PAGE
- 2** Labelling Arg-<sup>13</sup>C<sub>6</sub>, <sup>15</sup>N<sub>4</sub> | Lys-<sup>13</sup>C<sub>6</sub>, <sup>15</sup>N<sub>2</sub>
- 3** Isotopic incorporation >99% as determined by LC-MS/MS analysis of digested SIL-protein

### Other features

Predicted MW	61.5 kDa
Expression System	<i>E. coli</i>
Purification Tag	No tag
Protein content	Quantitation is carried out by Bradford protein assay using BSA as standard.
Formulation	Liquid - 50 mM Sodium Phosphate pH=7.0 buffer with 1 mM DTT

## Product preparation

For product preparation we recommend the following steps:

1. Thaw in ice
2. Vortex gently
3. Centrifuge briefly before opening

## Product storage

The product is liquid and shipped with dry ice.

**Store at -80 °C upon receipt.**

Once thawed, the protein can be preserved at 4°C for a few weeks.

**Avoid multiple freeze-thaw cycles**

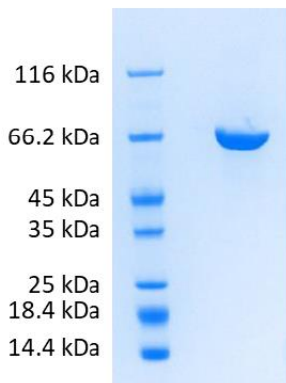
## How to use our product



SIL proteins allow to overcome the process variability since they are added at the very beginning of a sample preparation. This has potential positive impact on your analyte quantification, especially if the analyte interacts with other species commonly present within the matrix (1).



## Supporting information



SDS-PAGE gel analysis of NFL protein in Reduced/Heated conditions (RH) and stained with Coomassie blue.

## References

1. **G.Picard, D. Lebert, et al.** PSAQ standards for accurate MS-based quantification of proteins: from the concept to biomedical applications, *J. Mass Spectrom.* 2012, 47, 1353-1363



The product is intended for research use only. Not for diagnostic or therapeutic use.

## Legal

This product is licensed under U.S. Patent No. 7,396,688 and foreign counterparts from E. I. du Pont de Nemours and Company. The purchase of this product conveys to the buyer the nontransferable right to use the purchased amount of the product for research and development only. Information about licenses for other uses is available from: E. I. du Pont de Nemours and Company; Attn: Associate Director, Commercial Development; DuPont Experimental Station E268; 200 Powdermill Rd.; Wilmington, DE 19803; 1-877-881-9787 (voice), 1-302-695-1437 (fax), licensing@dupont.com.