



**Product name** Human NFL SIL-protein



**Catalog number** NF169536

**Uniprot ID** P07196

## 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

## Protein sequence

MSSFSYEPYYSTSYKRRYVETPRVHISSVRSYGSTARSAYSSYSAPVSSLSVRRSYSSSSGSLMPLENLDLSQVA AISNDLKSIRTQEKAQLQDLN  
DRFASFIERVHELEQQNKVLEAELLVLRQKHSEPSRFRALYEQEIRDRLAAEDATNEKQALQGEREGLEETLRNLQARYEEVLSREDAEGRML  
EARKGADEAALARAELEKRIDSLMDEISFLKKVHEEEIAELQAQIQYAQISVEMDVTKPDLAALKDIRAQYEKLAAKNMQNAEEWFKSRFTVL  
TESAAKNTDAVRAAKDEVSESRLLKAKTLEIEACRGMNEALEKQLQELEDKQNADISAMQDTINKLENELRTTKSEMARYLKEYQDLLNVKM  
ALDIEIAAYRKLLEGEETRLSFTSVGSITSGYSQSSQVFGRSAYGGLQTSYLMSTRSFPSYTTSHVQEEQIEVEETIEAAKAAEEAKDEPPSEGEAEE  
EEKDKKEAEEEEAAEEEEAAKEESEEAKEEEEEGGEGEGEETKEAEEEEKKVEGAGEEQAAKKKD

## Product features and protocols

### Key features

- 1 Purity >95%  
as determined by SDS-PAGE
- 2 Labelling Uniform-<sup>15</sup>N
- 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                  |

Template009-datashheet protein-V01 NF169536\_V01

## 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.**

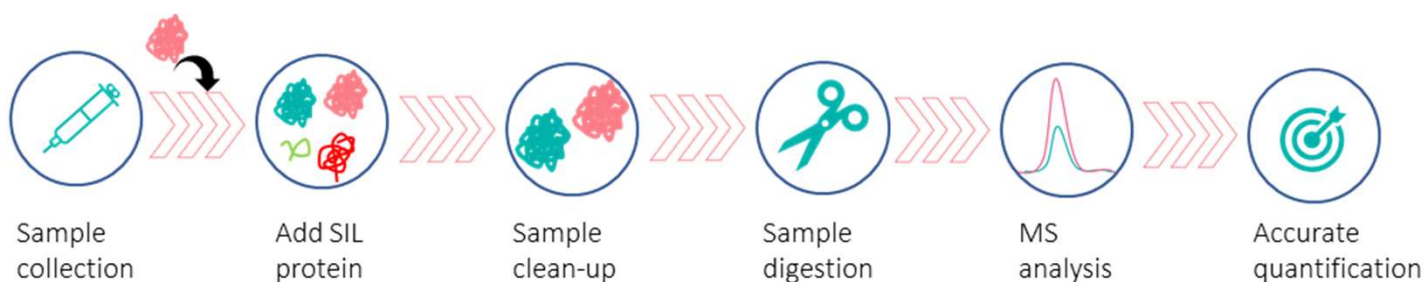
Once thawed, the protein can be preserved at 4°C for a few weeks.

**Avoid multiple freeze-thaw cycles**

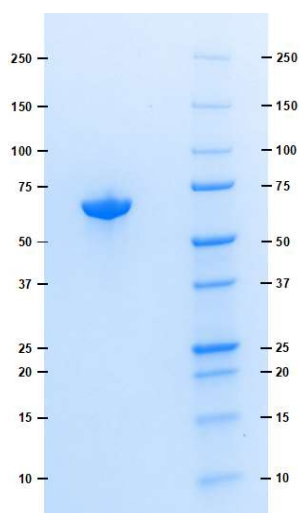
## How to use our product



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

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