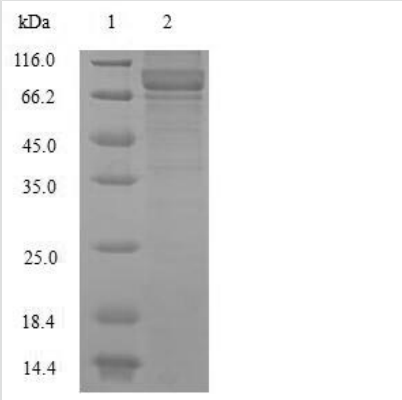
Recombinant Human Neurofilament light polypeptide (NEFL)

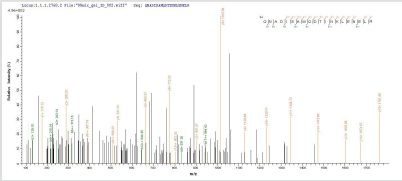
Product Code	CSB-EP015688HU
Relevance	Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber.
Abbreviation	Recombinant Human NEFL protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P07196
Alias	68 kDa neurofilament protein Neurofilament triplet L protein
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	SSFSYEPYYSTSYKRRYVETPRVHISSVRSGYSTARSAYSSYSAPVSSSLSVR RSYSSSSGSLMPSLENLDLSQVAAISNDLKSIRTQEKAQLQDLNDRFASFIERV HELEQQNKVLEAELLVLRQKHSEPSRFRALYEQEIRDLRLAAEDATNEKQALQ GEREGLEETLRNLQARYEEEVLSREDAEGRLMEARKGADEAALARAELEKRID SLMDEISFLKKVHEEEIAELQAQIQYAQISVEMDVTKPDLSAALKDIRAQYEKLA AKNMQNAEEWFKSRFTVLTESAAKNTDAVRAAKDEVSESRRLLKAKTLEIEAC RGMNEALEKQLQELEDKQNADISAMQDTINKLENELRTTKSEMARYLKEYQDL LNVKMALDIEIAAYRKLLEGEETRLSFTSVGSITSGYSQSSQVFGRSAYGGLQT SSYLMSTRSFPSYYTSHVQEEQIEVEETIEAAKAEEAKDEPPSEGEAEEEEKD KEEAEEEEAAEEEEAAKEESEEAKEEEEGGEGEEGEETKEAEEEEKKVEGAG EEQAAKKKD
Research Area	others
Source	E.coli
Target Names	NEFL
Protein Names	Recommended name: Neurofilament light polypeptide Short name= NF-LAlternative name(s): 68 kDa neurofilament protein Neurofilament triplet L protein
Expression Region	2-543aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	81.4kDa

Protein Length Full Length of Mature Protein

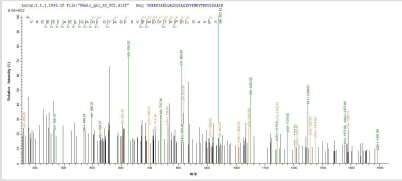
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP015688HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) NEFL.



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Description

The recombinant human neurofilament light polypeptide (NEFL) is prepared in the E.coli. Its expression region lies in the fragment encoding amino acid residues 2-543 of the human NEFL protein. This recombinant human NEFL protein is labeled with a 10xHis-SUMO-tag at the N-terminus and a Myc-tag at the C-terminus. It harbors the full length of the mature protein in length. The purity of this NEFL protein is greater than 90% determined by SDS-PAGE. On the gel, this protein migrated to the band with a molecular weight of about 90 kDa. And its component has been identified by the LC-MS/MS Analysis.

The NEFL protein is the light chain of neurofilaments that play an important role in axonal growth and the determination of axonal caliber. As axons are injured and die in neurodegenerative processes, NEFL leaks into the interstitial space, then into CSF and plasma. NEFL levels thus increase as neurodegenerative diseases progress and can reflect disease activity. Numerous studies have shown that NEFL is a potential biomarker for determining the stage of disease, tracking progression, and aiding in the identification of disease-modifying treatments in neurological disorders.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final

	concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.