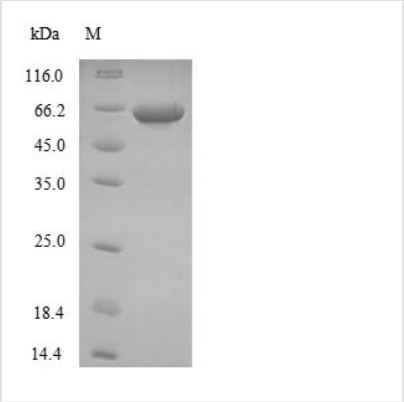
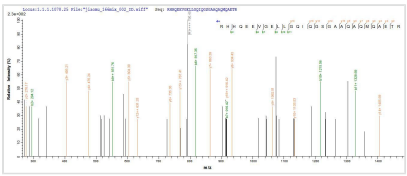
Recombinant Human Neurofilament heavy polypeptide (NEFH), partial

Product Code	CSB-EP015686HU
Relevance	Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber. NF-H has an important function in mature axons that is not subserved by the two smaller NF proteins.
Abbreviation	Recombinant Human NEFH protein, partial
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.	P12036
Alias	200 kDa neurofilament protein Neurofilament triplet H protein
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MMSFGGADALLGAPFAPLHGGGSLHYALARKGGAGGTRSAAGSSSGFHSWT RTSVSSVSASPSRFRGAGAASSTDSLDTLSNGPEGCMVAVATSRSEKEQLQA LNDRFAGYIDKVRQLEAHNRSLEGEAAALRQQQAGRSAMGELYEREVREMR GAVLRLGAARGQLRLEQEHLLEDIAHVRQRLDDEARQREEAEAAARALARFA QEAEAARVDLQKKAQALQEECGYLRRHHQEEVGELLGQIQGSGAAQAQMQA ETRDALKCDVTSALREIRAQLEGHAVQSTLQSEEWFRVRLDRLSEAAKVNTDA MRSAQEEITEYRRQLQARTTELEALKSTKDSLERQRSELEDRHQADIASYQEAI QQLDAELRNTKWEMAAQLREYQDLLNVKMALDIEIAAYRKLLEGEECRI
Research Area	Neuroscience
Source	E.coli
Target Names	NEFH
Protein Names	Recommended name: Neurofilament heavy polypeptide Short name= NF-H Alternative name(s): 200 kDa neurofilament protein Neurofilament triplet H protein
Expression Region	1-413aa
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	65.6kDa
Protein Length	Partial

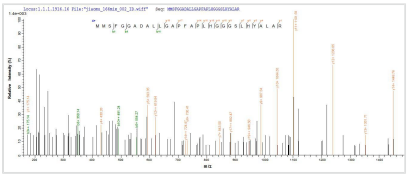
Image



(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-EP015686HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) NEFH.



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Description

The fusion tag N-terminal 10xHis-SUMO tag and C-terminal Myc tag gene was added to the gene sequence corresponding to the E.coli of the human NEFH protein to form the recombinant DNA. The recombinant DNA was cloned into the expression vector and then transformed into the E.coli for expression. Following purification, the product is the recombinant human NEFH protein carrying N-terminal 10xHis-SUMO tag and C-terminal Myc tag. The SDS-PAGE assessed the purity of this recombinant NEFH protein up to 85%. It had an apparent molecular weight of approximately 60 kDa. This recombinant NEFH protein may be used in neuroscience research.

NEFH is a gene encoding a protein named neurofilament heavy polypeptide (abbreviated NEFH) in human and belongs to intermediate filament family. This protein combines with medium and light subunits to make neurofilaments, which form the framework for nerve cells. Several studies have indicated that NEFH is expressed in podocytes during the disease course and that it prevents the reduction in synaptopodin expression and detachment of podocytes. A novel missense pathogenic variant in NEFH causing rare Charcot-Marie-Tooth neuropathy type 2CC. Currently, reported diseases associated with NEFH include Charcot-Marie-Tooth Disease, Axonal, Type 2Cc and Amyotrophic Lateral Sclerosis.

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.