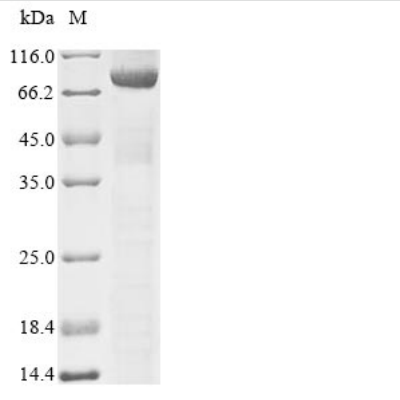
Recombinant Human Dynamin-1-like protein (DNM1L)

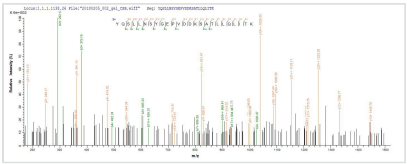
Product Code	CSB-EP007078HU
Relevance	Functions in mitochondrial and peroxisomal division. Mediates membrane fission through oligomerization into membrane-associated tubular structures that wrap around the scission site to constrict and sever the mitochondrial membrane through a GTP hydrolysis-dependent mechanism. Through its function in mitochondrial division, ensures the survival of at least some types of postmitotic neurons, including Purkinje cells, by suppressing oxidative damage. Required for normal brain development, including that of cerebellum. Facilitates developmentally regulated apoptosis during neural tube formation. Required for a normal rate of cytochrome c release and caspase activation during apoptosis; this requirement may depend upon the cell type and the physiological apoptotic cues. Plays an important role in mitochondrial fission during mitosis. Required for formation of endocytic vesicles. Proposed to regulate synaptic vesicle membrane dynamics through association with BCL2L1 isoform Bcl-X(L) which stimulates its GTPase activity in synaptic vesicles; the function may require its recruitment by MFF to clathrin-containing vesicles. Required for programmed necrosis execution.
Abbreviation	Recombinant Human DNM1L 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.	O00429
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	MEALIPVINKLQDVFNTVGADIIQLPQIVVVGTQSSGKSSVLESLVGRDLLPRGT GIVTRRPLILQLVHVSQEDKRKTTGEENGVEAEEWGKFLHTKNKLYTDFDEIRQ EIENETERISGNNKGVSPEPIHLKIFSPNVVNLTLVDLPGMTKVPVGDQPKDIEL QIRELILRFISNPNSIILAVTAANTDMATSEALKISREVDPDGRRTLAVITKLDLMD AGTDAMDVLMGRVIPVKLGIIGVVNRSQLDINNKKSVTDSIRDEYAFLQKKYPS LANRNGTKYLARTLNRLLMHHIRDCLPELKTRINVLAAQYQSLLNSYGEPVDDK SATLLQLITKFATEYCNTIEGTAKYIETSELCGGARICYIFHETFGRTLESVDPLG GLNTIDILTAIRNATGPRPALFVPEVSFELLVKRQIKRLEEPSLRCVELVHEEMQ RIIQHCSNYSTQELLRFPKLHDAIVEVVTCLLRKRLPVTNEMVHNLVAIELAYINT KHPDFADACGLMNNNIEEQRRNRLARELPSAVSRDKLIQDSRRETKNVASGG GGVGDGVQEPTTGNWRGMLKTSKAEELLAEEKSKPIPIMPASPQKGHAVNLL

	DVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLVNHVKD TLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRETH LW
Research Area	Cancer
Source	E.coli
Target Names	DNM1L
Protein Names	Dnm1p/Vps1p-like protein (DVLP) (Dynamin family member proline-rich carboxyl-terminal domain less) (Dymple) (Dynamin-like protein) (Dynamin-like protein 4) (Dynamin-like protein IV) (HdynIV) (Dynamin-related protein 1) (DLP1) (DRP1)
Expression Region	1-710aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	84.4 kDa
Protein Length	Full Length of Isoform 2

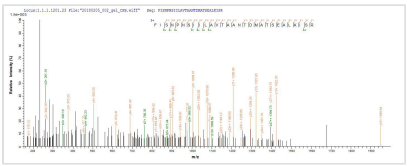
Image



(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-EP007078HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) DNM1L.



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Description

The expression region of this recombinant Human DNM1L covers amino acids 1-710. The expected molecular weight for the DNM1L protein is calculated to be 84.4 kDa. This protein is generated in a e.coli-based system. The DNM1L gene fragment has been modified by fusing the N-terminal 10xHis tag and C-terminal

	Myc tag, providing convenience in detecting and purifying the recombinant DNM1L protein during the following stages. Human dynamin-1-like protein (DNM1L) is a critical regulator of mitochondrial dynamics. It plays a central role in mitochondrial fission, a process essential for maintaining mitochondrial morphology, distribution, and function. DNM1L facilitates the division of mitochondria into smaller units, allowing for their proper distribution during cell division and ensuring mitochondrial quality control. Dysregulation of mitochondrial dynamics, often associated with abnormal DNM1L activity, is implicated in various diseases, including neurodegenerative disorders and cancer. Understanding the intricate role of DNM1L in mitochondrial dynamics is crucial for unraveling its implications in health and disease and exploring potential therapeutic interventions targeting mitochondrial function.
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.