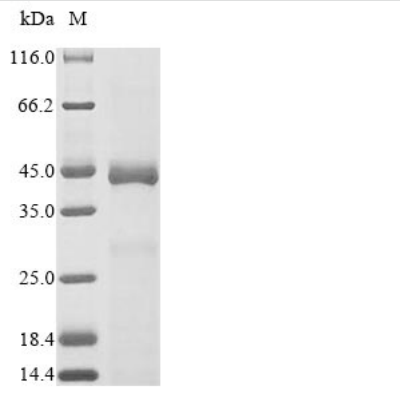
Recombinant Mouse Serine protease HTRA1 (Htra1), partial

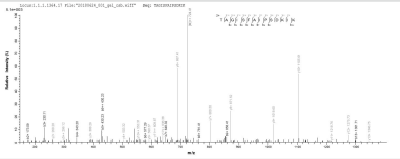
Product Code	CSB-EP879501MO1
Relevance	Serine protease with a variety of targets, including extracellular matrix proteins such as fibronectin. HTRA1-generated fibronectin fragments further induce synovial cells to up-regulate MMP1 and MMP3 production. May also degrade proteoglycans, such as aggrecan, decorin and fibromodulin. Through cleavage of proteoglycans, may release soluble FGF-glycosaminoglycan complexes that promote the range and intensity of FGF signals in the extracellular space. Regulates the availability of insulin-like growth factors (IGFs) by cleaving IGF-binding proteins. Inhibits signaling mediated by TGF-beta family members. This activity requires the integrity of the catalytic site, but it is unclear whether it leads to the proteolytic degradation of TGF-beta proteins themselves or not. By acting on TGF-beta signaling, may regulate many physiological processes, including retinal angiogenesis and neuronal survival and maturation during development. Intracellularly, degrades TSC2, leading to the activation of TSC2 downstream targets.
Abbreviation	Recombinant Mouse Htra1 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.	Q9R118
Product Type	Recombinant Protein
Immunogen Species	Mus musculus (Mouse)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	KLRQPPVIVLQRGACGQGQEDPNSLRHKYNFIADVVEKIAPAVVHIELYRKLPF SKREVPVASGSGFIVSEDGLIVTNAHVVTNKNRVKVELKNGATYEAKIKDVDEK ADIALIKIDHQGKLPVLLLGRSSELRPGEFVVAIGSPFSLQNTVTTGIVSTTQRG GKELGLRNSDMDYIQTDAIINYGNSGGPLVNLDGEVIGINTLKVTAGISFAIPSD KIKKFLTESHDRQAKGKAVTKKKYIGIRMMSLTSSKAKELKDRHRDFPDVLSGA YIIEVIPDTPAEAGGLKENDVIISINGQSVVTANDVSDVIKKENTLNMVVRRGNE DIVITVIPEEIDP
Research Area	Signal Transduction
Source	E.coli
Target Names	Htra1
Protein Names	High-temperature requirement A serine peptidase 1 (Serine protease 11) (Htra) (Prss11)
Expression Region	141-480aa

Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal 6xHis-tagged
Mol. Weight	39.0 kDa
Protein Length	Partial

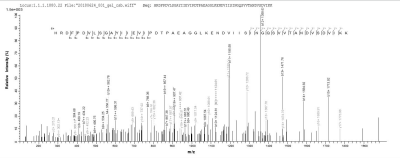
Image



(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-EP879501MO1 could indicate that this peptide derived from E.coli-expressed Mus musculus (Mouse) Htra1.



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Description

The process of expressing the recombinant mouse Htra1 protein in the E.coli requires the recombinant DNA gene formed by the integration of encoding gene for the 141-480aa of the mouse Htra1 protein and C-terminal 6xHis tag sequence, the expression vector that the recombinant DNA gene inserts into, the E.coli that provided the necessary macromolecules and components for transcription and translation of the cloned expression vector. After isolation and purification, this C-terminal 6xHis-tagged recombinant Htra1 protein was obtained. This recombinant Htra1 protein is characterized by high purity (>85%, SDS-PAGE). This Htra1 protein ran along the gel to the band of approximately 43 kDa molecular weight.

Serine protease HTRA1 is a protein encoding by a gene named Htra1 in mouse and a gene named HTRA1 in human. This protein, a member of serine proteases, which has an active center that cuts (cleaves) other proteins into smaller pieces. It consists of four well-defined domains, including an IGFBP domain, a Kazal domain, a protease domain and a PDZ domain. HTRA1 is a secretory protein and also present intracellularly and associated with microtubules. The proteolytic activity of HTRA1 regulates a broad range of

	physiological processes involving in bone biology, osteoarthritis, intervertebral disc (IVD) degeneration and tumorigenesis.
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.