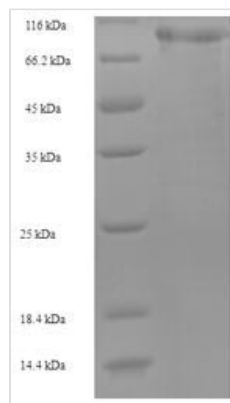




Recombinant Human Mannan-binding lectin serine protease 1 (MASP1)

Product Code	CSB-EP013508HU
Relevance	Functions in the lectin pathway of complement, which performs a key role in innate immunity by recognizing pathogens through patterns of sugar moieties and neutralizing them. The lectin pathway is triggered upon binding of mannan-binding lectin (MBL) and ficolins to sugar moieties which leads to activation of the associated proteases MASP1 and MASP2. Functions as an endopeptidase and may activate MASP2 or C2 or directly activate C3 the key component of complement reaction. Isoform 2 may have an inhibitory effect on the activation of the lectin pathway of complement or may cleave IGFBP5.
Abbreviation	Recombinant Human MASP1 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.	P48740
Alias	Complement factor MASP-3 Complement-activating component of Ra-reactive factor Mannose-binding lectin-associated serine protease 1 Short name: MASP-1 Mannose-binding protein-associated serine protease Ra-reactive factor serine protease p100 Short name: RaRF Serine protease 5 Cleaved into the following 2 chains: Mannan-binding lectin serine protease 1 heavy chain Mannan-binding lectin serine protease 1 light chain
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	HTVELNNMFGQIQSPGYPSDSEVTWNITVPDGFRIKLYFMHFNLESSYL CEYDYVKVETEDQVLATFCGRETTDTEQTPGQEVVLSPGSFMSITFRSDFSNE ERFTGFDAYMAVDVDECKEREDEELSCDHYCHNYIGGYCSCRFGYILHTD NRTCRVECSNLTFTQRTGVITSPDFPNPYPKSSECLYTIELEEGFMVNLQFEDI FDIEDHPEVPCPYDYIKIKVGPKVLGPFCEKAPEPISTQSHSVLILFHSDNSGE NRGWRLSYRAAGNECPQLPPVHGKIEPSQAKYFFKDQVLVSCDTGYKVLKD NVEMDTFQIECLKDGTWSNKIPTCKIVDCRAPGELEHGLITFSTRNNLTYYKSEI KYSCQEPYYKMLNNTGIYTCSAQGVWMNKVLGRSLPTCLPVCGLPKFSRKL MARIFNGRPAQKGTTTPWIAMLSHLNGQPFCGGSLLGSSWIVTAAHCLHQSLD PEDPTLRDSDLLSPSDFKIILGKHWRRLRSDENEQHLGVKHTTLHPQYDPNTFE NDVALVELLESPVLNAFVMPICLPEGPQQEGAMVIVSGWGKQFLQRFPETLME IEIPIVDHSTCQKAYAPLKKKVTRDMICAGEKEGGKDACAGDSGGPMVTLNRE RGQWYLVGTVSWGDDCGKKDRYGVYSYIHHNKDWIQRVTGVRN
Research Area	Immunology
Source	E.coli

Target Names	MASP1
Protein Names	Recommended name: Mannan-binding lectin serine protease 1 EC= 3.4.21.- Alternative name(s): Complement factor MASP-3 Complement-activating component of Ra-reactive factor Mannose-binding lectin-associated serine protease 1 Short
Expression Region	20-699aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	93.0kDa
Protein Length	Full Length of Mature Protein

Image


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

Description

The synthesis of the recombinant plasmid containing the gene encoding the Human MASP1 protein (20-699aa) is the first step to produce the recombinant Human MASP1 protein. After that, the recombinant plasmid is transformed into e.coli cells. e.coli cells capable of enduring a specific antibiotic are selected, demonstrating successful uptake of the recombinant plasmid. The e.coli cells containing the recombinant plasmid are cultured under conditions that encourage the expression of the gene of interest. A N-terminal 6xHis-SUMO tag is linked to the protein. Following expression, affinity purification is employed to isolate and purify the recombinant Human MASP1 protein from the cell lysate. Denaturing SDS-PAGE is applied to resolve the resulting recombinant Human MASP1 protein, indicating a purity level exceeding 90%.

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.