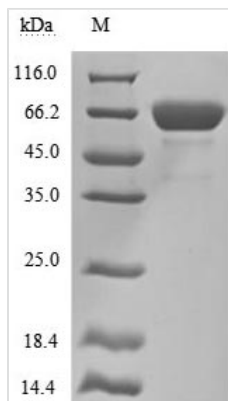


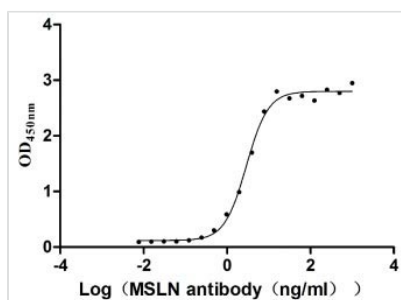


Recombinant Human Mesothelin (MSLN), partial (Active)

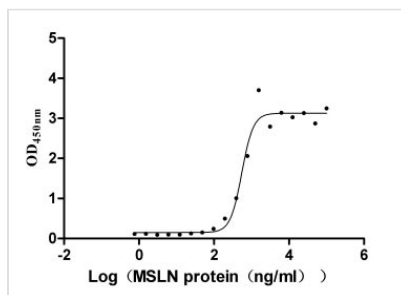
Product Code	CSB-MP015044HUc9
Relevance	Membrane-anchored forms may play a role in cellular adhesion. Megakaryocyte-potentiating factor (MPF) potentiates megakaryocyte colony formation in vitro.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature 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.	Q13421
Storage Buffer	Lyophilized from a 0.2 µm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Others
Immunogen Species	Homo sapiens (Human)
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized MSLN at 2 µg/ml can bind Anti-MSLN rabbit monoclonal antibody, the EC ₅₀ of the MSLN protein is 2.657-3.177 ng/ml.②Measured by its binding ability in a functional ELISA. Immobilized MUC16(CSB-MP704410HU3c7) at 10 µg/ml can bind MSLN, the EC ₅₀ is 460.7-662.2 ng/ml.
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	EVEKTACPSGKKAREIDESLIFYKKWELEACVDAALLATQMDRVNAIPFTYEQL DVLKHKLDELYPQGYPESVIQHLGYLFLKMSPEDIRKWNVTSLETLKALLEVNK GHEMSPQVATLIDRFVKGRGQLDKDTLDTLTAFYPGYLCSLSPEELSSVPPSSI WAVRPQDLDTCDPRQLDVLYPKARLAFQNMNGSEYFVKIQSFLGGAPTEDLK ALSQQNVSMDLATFMKLRTDAVLPLTVAEVQKLLGPHVEGLKAEERHRPVRD WILRQRQDDLDLTLGLGLQG
Research Area	Cancer
Source	Mammalian cell
Gene Names	MSLN
Expression Region	296-580aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal hFc-tagged
Mol. Weight	59.6 kDa
Protein Description	Partial of isoform 3
Image	



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



Activity
Measured by its binding ability in a functional ELISA. Immobilized MSLN at 2 µg/ml can bind Anti-MSLN rabbit monoclonal antibody, the EC₅₀ of the MSLN protein is 2.657-3.177 ng/ml.



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Measured by its binding ability in a functional ELISA. Immobilized MUC16(CSB-MP704410HU3c7) at 10 µg/ml can bind MSLN, the EC₅₀ is 460.7-662.2 ng/ml.

Description

The generation of the recombinant human MSLN protein typically includes the following steps: synthesizing the recombinant plasmid containing the gene encoding the human MSLN protein (296-580aa) along with the N-terminal hFc-tag gene, transforming the recombinant plasmid into mammalian cells, selecting the positive mammalian cells, and culturing the positive mammalian cells for protein expression. After expression, affinity purification is employed to isolate and purify the recombinant MSLN protein from the cell lysate. Denaturing SDS-PAGE is utilized to resolve the resulting recombinant human MSLN protein, revealing a purity level exceeding 90%. The endotoxin of this protein is less than 1.0 EU/ug as determined by the LAL method. Its activity has been validated through the functional ELISA.

Mesothelin (MSLN) is a protein found on the surface of certain cancer cells, including those from mesothelioma, ovarian cancer, and pancreatic cancer [1]. It's often used as a marker to identify these types of tumors [2]. The gene that makes MSLN produces a larger protein that gets split into two smaller ones: Megakaryocytic Potentiating Factor (MPF) and mature MSLN (mMSLN) [3]. In ovarian cancer, MSLN interacts with a protein called CA-125, possibly aiding in the spread of cancer cells [4]. While MSLN levels are high in ovarian cancer,



their exact role in tumor growth isn't fully understood [5].

Researchers are studying MSLN as a potential marker and target for treatment in mesothelioma [6]. Some believe MSLN helps cancer cells stick to certain tissues and spread in ovarian cancer [7]. However, because MSLN levels vary in different types of tumors, it's unclear if it directly contributes to cancer development [8]. Still, studies suggest that MSLN might spur cell growth in colorectal cancer and encourage the invasion of mesothelioma cells, indicating it could play a role in cancer progression [6]. Additionally, MSLN seems to influence cell growth in pancreatic cancer by affecting certain proteins involved in cell division [9].

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<https://doi.org/10.1158/1541-7786.mcr-08-0095>

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.