

Mesothelin Protein, Rat, Recombinant (His)

General Information

Synonyms:	mesothelin
Protein Construction:	A DNA sequence encoding the Rat MSLN (Q9ERA7) (Asp298-Ser600) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Asp 298
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	Q9ERA7
Molecular Weight:	35.48 kDa (predicted); 45.5 kDa (reducing conditions)

QC Testing

Biological Activity:	Loaded MSLN-Amatuximab-IgG1 on proA Biosensor, can bind Recombinant Rat Mesothelin Protein, His Tag (Cat#TMPY-06914) with an affinity constant of 1.43 μ M as determined in BLI assay (Sartorius Octet RED384) (Routinely tested).
Purity:	\geq 95 % as determined by SDS-PAGE. \geq 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The megakaryocyte potentiating factor belongs to the mesothelin family. This family is comprised of several mammalian pre-pro-megakaryocyte potentiating factor precursor (MPF) or mesothelin proteins. Mesothelin is a glycosylphosphatidylinositol-linked glycoprotein highly expressed in mesothelial cells, mesotheliomas, and ovarian cancer, but the biological function of the protein is not known. Megakaryocyte potentiating factor is highly

expressed in mesotheliomas, ovarian cancers, and some squamous cell carcinomas (at protein level). It interacts with MUC16 and potentiates megakaryocyte colony formation in vitro. Megakaryocyte potentiating factor is secreted by several mesothelioma cell lines and is frequently elevated in the blood of patients with mesothelioma. Measurement of this protein may be useful in following the response of mesothelioma to treatment. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

Reference

Chang MC, et al. (2012) Mesothelin enhances invasion of ovarian cancer by inducing MMP-7 through MAPK/ERK and JNK pathways. *Biochem J.* 442 (2): 293-302.

Nelson HH, et al. (2011) The relationship between tumor MSLN methylation and serum mesothelin (SMRP) in mesothelioma. *Epigenetics.* 6 (8): 1029-34.

Bournet B, et al. (2012) Gene expression signature of advanced pancreatic ductal adenocarcinoma using low density array on endoscopic ultrasound-guided fine needle aspiration samples. *Pancreatology.* 12 (1): 27-34.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481