Data Sheet (Cat.No.TMPY-06904)

TargetMol

Mesothelin Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	mesothelin
Protein Construction:	A DNA sequence encoding the Cynomolgus MSLN (XM_005590816.3) (Asp296-Gly580) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Asp 296
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	XM_005590816.3
Molecular Weight:	33.31 kDa (predicted); 43.6 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Anti-MSLN Antibody, human IgG1 at 2 μg/mL (100 μL/well) can bind Recombinant Cynomolgus Mesothelin Protein (His Tag) (Cat#TMPY-06904), the EC50 is 0.9-2.7 ng/mL.
Purity:	≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm 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 ImmunotherapyImmune CheckpointImmunotherapyTargeted 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.

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