

# Datasheet for ABIN7554036 Mesothelin Protein (MSLN) (AA 1-375) (His tag)





Overview

Quantity:	1 mg
Target:	Mesothelin (MSLN)
Protein Characteristics:	AA 1-375
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Mesothelin protein is labelled with His tag.

# Product Details

Purpose:	Made-to-order recombinant GPER1 Protein expressed in mammalian cells.
Sequence:	MDVTSQARGV GLEMYPGTAQ PAAPNTTSPE LNLSHPLLGT ALANGTGELS EHQQYVIGLF
	LSCLYTIFLF PIGFVGNILI LVVNISFREK MTIPDLYFIN LAVADLILVA DSLIEVFNLH ERYYDIAVLC
	TFMSLFLQVN MYSSVFFLTW MSFDRYIALA RAMRCSLFRT KHHARLSCGL IWMASVSATL
	VPFTAVHLQH TDEACFCFAD VREVQWLEVT LGFIVPFAII GLCYSLIVRV LVRAHRHRGL
	RPRRQKALRM ILAVVLVFFV CWLPENVFIS VHLLQRTQPG AAPCKQSFRH AHPLTGHIVN
	LAAFSNSCLN PLIYSFLGET FRDKLRLYIE QKTNLPALNR FCHAALKAVI PDSTEQSDVR FSSAV
	Sequence without tag. The proposed Purification-Tag is based on experiences with the
	expression system, a different complexity of the protein could make another tag necessary.
	In case you have a special request, please contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits:

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	<ul> <li>Made to order protein - from design to production - by highly experienced protein experts.</li> <li>Protein expressed in mammalian cells and purified in one-step affinity chromatography</li> <li>The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>
	This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.
	If you are not interested in a full length protein, please contact us for individual protein fragments.
	The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	made-to-order

# Target Details

Target:	Mesothelin (MSLN)
Alternative Name:	GPER1 (MSLN Products)
Background:	G-protein coupled estrogen receptor 1 (Chemoattractant receptor-like 2) (Flow-induced
	endothelial G-protein coupled receptor 1) (FEG-1) (G protein-coupled estrogen receptor 1) (G-
	protein coupled receptor 30) (GPCR-Br) (IL8-related receptor DRY12) (Lymphocyte-derived G-
	protein coupled receptor) (LYGPR) (Membrane estrogen receptor) (mER),FUNCTION: G-protein
	coupled estrogen receptor that binds to 17-beta-estradiol (E2) with high affinity, leading to rapid
	and transient activation of numerous intracellular signaling pathways. Stimulates cAMP
	production, calcium mobilization and tyrosine kinase Src inducing the release of heparin-bound
	epidermal growth factor (HB-EGF) and subsequent transactivation of the epidermal growth
	factor receptor (EGFR), activating downstream signaling pathways such as PI3K/Akt and
	ERK/MAPK. Mediates pleiotropic functions among others in the cardiovascular, endocrine,
	reproductive, immune and central nervous systems. Has a role in cardioprotection by reducing
	cardiac hypertrophy and perivascular fibrosis in a RAMP3-dependent manner. Regulates arteria
	blood pressure by stimulating vasodilation and reducing vascular smooth muscle and
	microvascular endothelial cell proliferation. Plays a role in blood glucose homeostasis

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contributing to the insulin secretion response by pancreatic beta cells. Triggers mitochondrial
apoptosis during pachytene spermatocyte differentiation. Stimulates uterine epithelial cell
proliferation. Enhances uterine contractility in response to oxytocin. Contributes to thymic
atrophy by inducing apoptosis. Attenuates TNF-mediated endothelial expression of leukocyte
adhesion molecules. Promotes neuritogenesis in developing hippocampal neurons. Plays a role
in acute neuroprotection against NMDA-induced excitotoxic neuronal death. Increases firing
activity and intracellular calcium oscillations in luteinizing hormone-releasing hormone (LHRH)
neurons. Inhibits early osteoblast proliferation at growth plate during skeletal development.
Inhibits mature adipocyte differentiation and lipid accumulation. Involved in the recruitment of
beta-arrestin 2 ARRB2 at the plasma membrane in epithelial cells. Functions also as a receptor
for aldosterone mediating rapid regulation of vascular contractibility through the PI3K/ERK
signaling pathway. Involved in cancer progression regulation. Stimulates cancer-associated
fibroblast (CAF) proliferation by a rapid genomic response through the EGFR/ERK transduction
pathway. Associated with EGFR, may act as a transcription factor activating growth regulatory
genes (c-fos, cyclin D1). Promotes integrin alpha-5/beta-1 and fibronectin (FN) matrix assembly
in breast cancer cells. {ECO:0000269 PubMed:11043579, ECO:0000269 PubMed:15539556,
ECO:0000269 PubMed:15705806, ECO:0000269 PubMed:19179659,
ECO:0000269 PubMed:19342448, ECO:0000269 PubMed:20203690,
ECO:0000269 PubMed:20551055, ECO:0000269 PubMed:21149639,
EC0:0000269 PubMed:21242460, EC0:0000269 PubMed:21427217,
ECO:0000269 PubMed:23135268, ECO:0000269 PubMed:23283935,
ECO:0000269 PubMed:23285008, ECO:0000269 PubMed:23674134}.
42.2 kDa
Q99527

EGFR Signaling Pathway, Positive Regulation of Peptide Hormone Secretion, Intracellular Steroid Hormone Receptor Signaling Pathway, Steroid Hormone Mediated Signaling Pathway, Carbohydrate Homeostasis, cAMP Metabolic Process, Regulation of G-Protein Coupled Receptor Protein Signaling, Positive Regulation of Endopeptidase Activity, Regulation of Carbohydrate Metabolic Process

### Application Details

Molecular Weight:

UniProt:

Pathways:

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for
	functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

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## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

### Images



### **Protein Structure**

**Image 1.** AlphaFold protein structure predicition of Human Recombinant GPER1 Protein, UniprotID Q99527



#### **Protein Structure**

**Image 2.** AlphaFold protein structure predicition of Human Recombinant GPER1 Protein, UniprotID Q99527



#### **Protein Structure**

**Image 3.** AlphaFold protein structure predicition of Human Recombinant GPER1 Protein, UniprotID Q99527

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