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Datasheet for ABIN3131245

Mesp2 Protein (AA 1-370) (His tag)

1 Image

Overview

Quantity:	1 mg
Target:	Mesp2
Protein Characteristics:	AA 1-370
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Mesp2 protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MAQSSPPQSL QGLVPLGLLP GLGLGSAIGL HVSGLVLRV RFLPFYATRR PSQPAGPARS
TRTTQATAPR RTRPAPAGGQ RQSASEREKL RMRTLARALQ ELRRFLPPSV APAGQSLTKI
ETLRLAIRYI GHLSALLGLS EDLRRRRRRR SADAASHRC PQCPDGGSPS QAQMLGPSLG
SAMSSGVSWG CPPACPGPLI SPENLGNRIS NVDPRVTPPY CPQIQSPLHQ SLERAADSSP
WAPPQACPGM QMSPEPRNKT GHWTQSTEPA ELTKVYQSLVS VSPEPRLSLG SPLLLPRPSC
QRLQPQPQPQ PQWGCWGHDA EVLSTSEDQG SSPALQLPVA SPTPSSGLQL SGCPELWQED
LEGPPLNIFY

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Mouse Mesp2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	Mesp2
Alternative Name:	Mesp2 (Mesp2 Products)

Target Details

Background: Transcription factor with important role in somitogenesis. Defines the rostrocaudal patterning of the somite by participating in distinct Notch pathways. Regulates also the FGF signaling pathway. Specifies the rostral half of the somites. Generates rostro-caudal polarity of somites by down-regulating in the presumptive rostral domain DLL1, a Notch ligand. Participates in the segment border formation by activating in the anterior presomitic mesoderm LFNG, a negative regulator of DLL1-Notch signaling. Acts as a strong suppressor of Notch activity. Together with MESP1 is involved in the epithelialization of somitic mesoderm and in the development of cardiac mesoderm. May play a role with Tcf15 in the differentiation of myotomal and sclerotomal cells by regulating Pax family genes. Controls also the expression of the protocadherin PCDH8/PAPC, EPHA4, RIPPLY2, NOTCH2, FGFR1, and CER1. Binds to the E-boxes within the EPHA4 and RIPPLY2 enhancers. {ECO:0000269|PubMed:10887078, ECO:0000269|PubMed:10932180, ECO:0000269|PubMed:12591245, ECO:0000269|PubMed:12900443, ECO:0000269|PubMed:15677726, ECO:0000269|PubMed:15902259, ECO:0000269|PubMed:16728472, ECO:0000269|PubMed:17306789, ECO:0000269|PubMed:17477400, ECO:0000269|PubMed:9242490}.

Molecular Weight: 40.7 kDa Including tag.

UniProt: [O08574](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Handling

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process