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Datasheet for ABIN3131245

Mesp2 Protein (AA 1-370) (Strep Tag)

Overview

Quantity:	1 mg
Target:	Mesp2
Protein Characteristics:	AA 1-370
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This Mesp2 protein is labelled with Strep Tag.
Application:	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 CPPACGPLI SPENLGNRIS NVDPRVTPPY CPQIQSPLHQ SLERAADSSP
 WAPPQACPGM QMSPEPRNKT GHWTQSTEPA ELTKVYQSLVS VSPEPRLSLG SPLLLPRPSC
 QRLQPQPQPQ PQWGCWGHDA EVLSTSEDQG SSPALQLPVA SPTPSSGLQL SGCPELWQED
 LEGPPLNIFY

Sequence without tag. The proposed Strep-Tag is based on experience s 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.

Characteristics: Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- 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.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- 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.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. 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.

Product Details

Purity:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	Mesp2
Alternative Name:	Mesp2 (Mesp2 Products)
Background:	<p>Mesoderm posterior protein 2,FUNCTION: 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}.</p>
Molecular Weight:	39.8 kDa
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:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce

Application Details

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Restrictions: For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)