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Datasheet for ABIN3126482

Mucolin 2 (MUC2) (AA 1-566) protein (Strep Tag)

Overview

Quantity:	1 mg
Target:	Mucolin 2 (MUC2)
Protein Characteristics:	AA 1-566
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	Strep Tag
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

Product Details

Sequence: MPGDEETLDL PAWNRVPLT WGPVHRSAMA SLDSEVREEC LREDLKFYFM SPCEKYRARR
QIPWKLGLQI LKIVMVTTL VRFGLSNQLV VAFKEDNTVA FKHLFLKGFS GVDEDDYSCS
IYTQENTYES IFFAIKQYRH LKNISLATLG YGESEDNRTG LKVCQHYKT GAMFSSNETL
NIDSDIETDC IHLDLQVLT EPEDWAQTSF FRLDFYRLVQ VDISFALKGI DLQAVHSREI
PDCYLFQNTI TFDNTAHSGK IKIYNSEAN IEECKNMNIS GSTQRSTHYL LVFDVFMVIM
CLASLILCTR SIVLALRLRK RFLNFFLEKY KQRVCGADQW EFVNGWYVLV TISDLMTIIG
SILKMEIKAK KLTNYDVCSI LLGTSTLFWV VGVIRYLYGF QTYNVILTM QASLPKVLRF
CACAGMIYLG YTFGWIVLG PYHEKFENLN IVAECLFSLV NGDDMFATFA QIQQKSILVW
LFSRLYLYSF ISLFIYMVLS LFIALITDSY HTIKKYQQHG FPETDLQKFL KESGSKDGYQ
KQPSALLSCL CCLRRRRSND HLILID

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.

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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:	≥ 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:	Mucolipin 2 (MCOLN2)
Alternative Name:	Mcoln2 (MCOLN2 Products)
Background:	<p>Mucolipin-2 (Transient receptor potential channel mucolipin 2) (TRPML2),FUNCTION: Nonselective cation channel probably playing a role in the regulation of membrane trafficking events. Acts as a Ca(2+)-permeable cation channel with inwardly rectifying activity (PubMed:19763610). May activate ARF6 and be involved in the trafficking of GPI-anchored cargo proteins to the cell surface via the ARF6-regulated recycling pathway (By similarity). May play a role in immune processes. In adaptive immunity, TRPML2 and TRPML1 may play redundant roles in the function of the specialized lysosomes of B cells (PubMed:17050035). In the innate immune response, may play a role in the regulation of chemokine secretion and macrophage migration (PubMed:26432893). Through a possible and probably tissue-specific heteromerization with MCOLN1 may be at least in part involved in many lysosome-dependent cellular events. {ECO:0000250 UniProtKB:Q8IZK6, ECO:0000269 PubMed:17050035, ECO:0000269 PubMed:19763610, ECO:0000269 PubMed:22753890, ECO:0000269 PubMed:26432893, ECO:0000305}.</p>
Molecular Weight:	65.5 kDa
UniProt:	Q8K595

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 Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce

Application Details

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!

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)