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Datasheet for ABIN3089191

AP4M1 Protein (AA 1-453) (Strep Tag)

1 Image

Overview

Quantity:	1 mg
Target:	AP4M1 (Ap4m1)
Protein Characteristics:	AA 1-453
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AP4M1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence: MISQFFILSS KGDPLIYKDF RGDSGGRDVA ELFYRKLTLG PGDESPVVMH HHGRHFIHIR
HSGLYLVVTT SENVSPFSL ELLSRLATLL GDYCGSLGEG TISRNVAVLY ELLDEVLDYG
YVQTTSTEML RNFIQTEAVV SKPFSLFDLS SVGLFGAETQ QSKVAPSSAA SRPVLSSRSD
QSQKNEVFLD VVERLSVIA SNGSLLKVDV QGEIRLKSFL PSGSEMRIQL TEEFCVKGSE
LRGYGPGIRV DEVSFHSSVN LDEFESHRIQL RQPPQGELT VMRYQLSDDL PSPLPFRLLP
SVQWDRGSGR LQVYLKLRCD LLSKSQALNV RLHLPLPRGV VLSLQELSSP EQKAELAEGA
LRWDLPRVQG GSQLSGLFQM DVPGPPGPPS HGLSTSASPL GLGPASLSFE LPRHTCSGLQ
VRFLRLAFRP CGNANPHKWV RHLSHSDAYV IRI

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 Exspasy'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:	AP4M1 (Ap4m1)
Alternative Name:	AP4M1 (Ap4m1 Products)
Background:	<p>AP-4 complex subunit mu-1 (AP-4 adaptor complex mu subunit) (Adaptor-related protein complex 4 subunit mu-1) (Mu subunit of AP-4) (Mu-adaptin-related protein 2) (mu-ARP2) (Mu4-adaptin) (mu4),FUNCTION: Component of the adaptor protein complex 4 (AP-4). Adaptor protein complexes are vesicle coat components involved both in vesicle formation and cargo selection. They control the vesicular transport of proteins in different trafficking pathways (PubMed:10436028, PubMed:11139587, PubMed:10066790, PubMed:11802162, PubMed:20230749). AP-4 forms a non clathrin-associated coat on vesicles departing the trans-Golgi network (TGN) and may be involved in the targeting of proteins from the trans-Golgi network (TGN) to the endosomal-lysosomal system (PubMed:11139587, PubMed:20230749). It is also involved in protein sorting to the basolateral membrane in epithelial cells and the proper asymmetric localization of somatodendritic proteins in neurons (By similarity). Within AP-4, the mu-type subunit AP4M1 is directly involved in the recognition and binding of tyrosine-based sorting signals found in the cytoplasmic part of cargos (PubMed:10436028, PubMed:11139587, PubMed:26544806, PubMed:20230749). The adaptor protein complex 4 (AP-4) may also recognize other types of sorting signal (By similarity). {ECO:0000250 UniProtKB:E2RED8, ECO:0000250 UniProtKB:Q2PWT8, ECO:0000250 UniProtKB:Q9JKC7, ECO:0000269 PubMed:10066790, ECO:0000269 PubMed:10436028, ECO:0000269 PubMed:11139587, ECO:0000269 PubMed:11802162, ECO:0000269 PubMed:20230749, ECO:0000269 PubMed:26544806}.</p>
Molecular Weight:	50.0 kDa
UniProt:	O00189

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.
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Application Details

Comment:	<p>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 even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>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!</p>
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)

Images



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