

Datasheet for ABIN3136579

APPL1 Protein (AA 1-707) (Strep Tag)



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Overview

Quantity:	250 µg
Target:	APPL1
Protein Characteristics:	AA 1-707
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This APPL1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Brand:	AlIcE®
Sequence:	<p>MPGIDKLPIE ETLEDSPQTR SLLGVFEEDA TAISNYMNQL YQAMHRIYDA QNELSAATHL</p> <p>TSKLLKEYEK QRFPLGGDDE VMSSTLQQFS KVIDELSSCH AVLSTQLADA MMFPISQFKE</p> <p>RDLKEILTLK EVFQIASNDH DAAINRYSRL SKKRENDKVK YEVEDVYTS RKKQHQTMMH</p> <p>YFCALNTLQY KKKIALLEPL LGYMQAQISF FKMGSENLNG QLEEFANIG TSVQNVRRM</p> <p>DGDVETMQQT IEDLEVASDP LYLPDPDPTK FPINRNLTRK AGYLNARNKT GLVSSTWDRQ</p> <p>FYFTQGGNLM SQARGDVAGG LAMDIDNCSV MAVDCEDRRY CFQITSFDGK KSSILQAESK</p> <p>KDHEEWICTI NNISKQIYLS ENPEETAARV NQSALEAVTP SPSFQQRHES LRPGGQSRPP</p> <p>TARTSSSGSL GSESTNLAAL SLDSLVPDT PIQFDIISPV CEDQPGQAKA FGQGGRRTNP</p> <p>FGESGGSTKS ETEDSILHQL FIVRFLGSME VKSDDHPDVV YETMRQILAA RAIHNIFRMT</p> <p>ESHLLVTCDC LKLIDPQTQV TRLTFPLPCV VLYATHQENK RLFQFVLRYS GGRSESNLSS</p> <p>VCIYIFESNNE GEKICDSVGL AKQIALHAEL DRRASEKQKE IERVKEKQKQ ELSKQKQIEK</p>

DLEEQSRLIA ASSRPNQAGS EGQLVLSSSQ SEESDLGEEG KKRESEA

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 in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Product Details

Purity: > 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Grade: custom-made

Target Details

Target: APPL1

Alternative Name: Appl1 ([APPL1 Products](#))

Background: DCC-interacting protein 13-alpha (Dip13-alpha) (Adapter protein containing PH domain, PTB domain and leucine zipper motif 1),FUNCTION: Multifunctional adapter protein that binds to various membrane receptors, nuclear factors and signaling proteins to regulate many processes, such as cell proliferation, immune response, endosomal trafficking and cell metabolism (By similarity) (PubMed:25328665, PubMed:25568335, PubMed:27219021). Regulates signaling pathway leading to cell proliferation through interaction with RAB5A and subunits of the NuRD/MeCP1 complex (By similarity). Functions as a positive regulator of innate immune response via activation of AKT1 signaling pathway by forming a complex with APPL1 and PI3K/Akt signaling in macrophages (PubMed:25568335). Regulates TLR4 signaling in activated macrophages (PubMed:27219021). Involved in trafficking of the TGFBR1 from the endosomes to the nucleus via microtubules in a TRAF6-dependent manner. Plays a role in cell metabolism by regulating adiponectin and insulin signaling pathways (By similarity). Required for fibroblast migration through HGF cell signaling (PubMed:26445298). Positive regulator of beta-catenin/TCF-dependent transcription through direct interaction with RUVBL2/reptin resulting in the relief of RUVBL2-mediated repression of beta-catenin/TCF target genes by modulating the interactions within the beta-catenin-reptin-HDAC complex (By similarity). {ECO:0000250|UniProtKB:Q9UKG1, ECO:0000269|PubMed:25328665, ECO:0000269|PubMed:25568335, ECO:0000269|PubMed:26445298, ECO:0000269|PubMed:27219021}.

Molecular Weight: 79.3 kDa

UniProt: [Q8K3H0](#)

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.

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>
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Restrictions:	For Research Use only
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Handling

Format:	Liquid
Buffer:	<p>The buffer composition is at the discretion of the manufacturer.</p> <p>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol Might differ depending on protein.</p>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months