Datasheet for ABIN3137125

AP2B1 Protein (AA 2-937) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	AP2B1
Protein Characteristics:	AA 2-937
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AP2B1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	TDSKYFTTNK KGEIFELKAE LNNEKKEKRK EAVKKVIAAM TVGKDVSSLF PDVVNCMQTD NLELKKLVYL YLMNYAKSQP DMAIMAVNSF VKDCEDPNPL IRALAVRTMG CIRVDKITEY LCEPLRKCLK DEDPYVRKTA AVCVAKLHDI NAQMVEDQGF LDSLRDLIAD SNPMVVANAV AALSEISESH PNSNLLDLNP QNINKLLTAL NECTEWGQIF ILDCLSNYNP KDDREAQSIC ERVTPRLSHA NSAVVLSAVK VLMKFLELLP KDSDYYNMLL KKLAPPLVTL LSGEPEVQYV ALRNINLIVQ KRPEILKQEI KVFFVKYNDP IYVKLEKLDI MIRLASQANI AQVLAELKEY ATEVDVDFVR KAVRAIGRCA IKVEQSAERC VSTLLDLIQT KVNYVVQEAI VVIRDIFRKY PNKYESIIAT LCENLDSLDE PDARAAMIWI VGEYAERIDN ADELLESFLE GFHDESTQVQ LTLLTAIVKL FLKKPSETQE LVQQVLSLAT QDSDNPDLRD RGYIYWRLLS TDPVTAKEVV LSEKPLISEE TDLIEPTLLD ELICHIGSLA SVYHKPPNAF VEGSHGIHRK HLPIHHGSTD AGDSPVGTTT TTNLEQPQVI PSQGDLLGDL LNLDLGPPVN VPQVSSMQMG AVDLLGGGLD SLVGQSFIPS SVPATFAPSP TPAVVSSGLN DLFELSTGIG MAPGGYVAPK AVWLPAVKAK

	GLEISGTFTH RQGHIYMEMN FTNKALQHMT DFAIQFNKNS FGVIPSTPLA IHTPLMPNQS IDVSLPLNTL GPVMKMEPLN NLQVAVKNNI DVFYFSCLIP LNVLFVEDGK MERQVFLATW KDIPNENELQ FQIKECHLNA DTVSSKLQNN NVYTIAKRNV EGQDMLYQSL KLTNGIWILA ELRIQPGNPN YTLSLKCRAP EVSQYIYQVY DSILKN **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 Ap2b1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • 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 receival 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: 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.

Product Details

Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	AP2B1
Alternative Name:	Ap2b1 (AP2B1 Products)
Background:	Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via transport vesicles in different membrane traffic pathways. Adaptor protein complexes are vesicle coat components and appear to be involved in cargo selection and vesicle formation. AP-2 is involved in clathrin-dependent endocytosis in which cargo proteins are incorporated into vesicles surrounded by clathrin (clathrin-coated vesicles, CCVs) which are destined for fusion with the early endosome. The clathrin lattice serves as a mechanical scaffold but is itself unable to bind directly to membrane components. Clathrin-associated adaptor protein (AP) complexes which can bind directly to both the clathrin lattice and to the lipid and protein components of membranes are considered to be the major clathrin adaptors contributing the CCV formation. AP-2 also serves as a cargo receptor to selectively sort the membrane proteins involved in receptor-mediated endocytosis. AP-2 seems to play a role in the recycling of synaptic vesicle membranes from the presynaptic surface. AP-2 recognizes Y-X-X-[FILMV] (Y-X-X-Phi) and [ED]-X-X-X-L-[LI] endocytosis signal motifs within the cytosolic tails of transmembrane cargo molecules. AP-2 may also play a role in maintaining normal post-endocytic trafficking through the ARF6-regulated, non-clathrin pathway. The AP-2 beta subunit acts via its C-terminal appendage domain as a scaffolding platform for endocytic accessory proteins, at least some clathrin-associated sorting proteins (CLASPs) are recognized by their [DE]-X(1,2)-F-X-X-[FL]-X-X-X-R motif. The AP-2 beta subunit binds to clathrin heavy chain, promoting clathrin lattice assembly, clathrin displaces at least some CLASPs from AP2B1 which probably then can be positioned for further coat assembly (By similarity). {ECO:0000250, ECO:0000269|PubMed:14745134, ECO:0000269|PubMed:15473838}.
Molecular Weight:	105.4 kDa Including tag.
UniProt:	Q9DBG3
Pathways:	EGFR Signaling Pathway, Neurotrophin Signaling Pathway, EGFR Downregulation

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 gurantee 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.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images

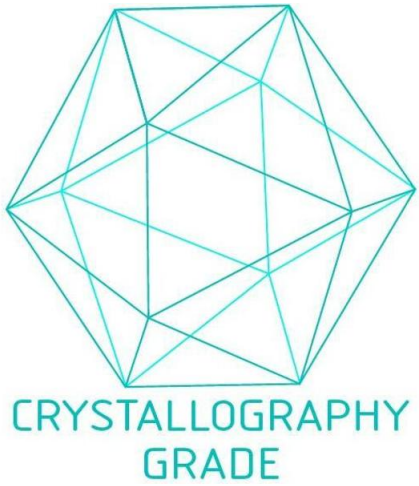

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process