Datasheet for ABIN7552126

alpha Adaptin Protein (AA 1-977) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	alpha Adaptin (AP2A1)
Protein Characteristics:	AA 1-977
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This alpha Adaptin protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat AP2A1 Protein expressed in mammalien cells.
Sequence:	MPAVSKGDGM RGLAVFISDI RNCKSKEAEI KRINKELANI RSKFKGDKAL DGYSKKKYVC KLLFIFLLGH DIDFGHMEAV NLLSSNKYTE KQIGYLFISV LVNSNSELIR LINNAIKNDL ASRNPTFMCL ALHCIANVGS REMGEAFAAD IPRILVAGDS MDSVKQSAAL CLLRLYKASP DLVPMGEWTA RVVHLLNDQH MGVVTAAVSL ITCLCKKNPD DFKTCVSLAV SRLSRIVSSA STDLQDYTYY FVPAPWLSVK LLRLLQCYPP PEDAAVKGRL VECLETVLNK AQEPPKSKKV QHSNAKNAIL FETISLIIHY DSEPNLLVRA CNQLGQFLQH RETNLRYLAL ESMCTLASSE FSHEAVKTHI DTVINALKTE RDVSVRQRAA DLLYAMCDRS NAKQIVSEML RYLETADYAI REEIVLKVAI LAEKYAVDYS WYVDTILNLI RIAGDYVSEE VWYRVLQIVT NRDDVQGYAA KTVFEALQAP ACHENMVKVG GYILGEFGNL IAGDPRSSPP VQFSLLHSKF HLCSVATRAL LLSTYIKFIN LFPETKATIQ GVLRAGSQLR NADVELQQRA VEYLTLSSVA STDVLATVLE EMPPFPERES SILAKLKRKK GPGAGSALDD GRRDPSSNDI NGGMEPTPST VSTPSPSADL

Product Details

	LGLRAAPPPA APPASAGAGN LLVDVFDGPA AQPSLGPTPE EAFLSELEPP APESPMALLA DPAPAADPGP EDIGPPIPEA DELLNKFVCK NNGVLFENQL LQIGVKSEFR QNLGRMYLFY GNKTSVQFQN FSPTVVHPGD LQTQLAVQTK RVAAQVDGGA QVQQVLNIEC LRDFLTPPLL SVRFRYGGAP QALTLKLPVT INKFFQPTEM AAQDFFQRWK QLSLPQQEAQ KIFKANHPMD AEVTKAKLLG FGSALLDNVD PNPENFVGAG IIQTKALQVG CLLRLEPNAQ AQMYRLTLRT SKEPVSRHLC ELLAQQF **Sequence without tag. The proposed Purification-Tag is based on experiences 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 to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • 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. If you are not interested in a full length protein, please contact us for individual protein fragments. 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.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	alpha Adaptin (AP2A1)
Alternative Name:	AP2A1 (AP2A1 Products)
Background:	AP-2 complex subunit alpha-1 (100 kDa coated vesicle protein A) (Adaptor protein complex AP-2 subunit alpha-1) (Adaptor-related protein complex 2 subunit alpha-1) (Alpha-adaptin A) (Alpha1-adaptin) (Clathrin assembly protein complex 2 alpha-A large chain) (Plasma membrane adaptor HA2/AP2 adaptin alpha A subunit),FUNCTION: Component of the adaptor protein complex 2 (AP-2). Adaptor protein complexes function in protein transport via transport

Target Details

	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. During long-term potentiation in hippocampal neurons, AP-2 is responsible for the endocytosis of ADAM10 (PubMed:23676497). The AP-2 alpha subunit binds polyphosphoinositide-containing lipids, positioning AP-2 on the membrane. The AP-2 alpha subunit acts via its C-terminal appendage domain as a scaffolding platform for endocytic accessory proteins. The AP-2 alpha and AP-2 sigma subunits are thought to contribute to the recognition of the [ED]-X-X-X-L-[LI] motif (By similarity). {ECO:0000250, ECO:0000269|PubMed:14745134, ECO:0000269|PubMed:15473838, ECO:0000269|PubMed:19033387, ECO:0000269|PubMed:23676497}.
Molecular Weight:	107.5 kDa
UniProt:	O95782
Pathways:	Notch Signaling, 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 guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition 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:	12 months