

Datasheet for ABIN3091838 COPB1 Protein (AA 2-953) (His tag)



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1 Image

Overview

Quantity:	1 mg
Target:	COPB1
Protein Characteristics:	AA 2-953
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This COPB1 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	<p>TAAENVCYTL INVPMDSEPP SEISLKNDLE KGDVKSKEA LKKVIIMILN GEKLPGLLMT</p> <p>IIRFVLPLQD HTIKKLLLVF WEIVPKTTPD GRLLHEMILV CDAYRKDLQH PNEFIRGSTL</p> <p>RFLCKLKEAE LLEPLMPAIR ACLEHRHSYV RRNAVLAITY IYRNFEHLIP DAPELIHDFL</p> <p>VNEKDASCKR NAFMMLIHAD QDRALDYLST CIDQVQTFGD ILQLVIVELI YKVCHANPSE</p> <p>RARFIRCIYN LLQSSSPAVK YEAAGTLVTL SSAPTAIKAA AQCYIDLIK ESDNNVKLIV LDRLIELKEH</p> <p>PAHERVLQDL VMDILRVLST PDLEVRKKTLL QALDLVSSR NVEELVIVLK KEVIKTNVNS</p> <p>EHEDTDKYRQ LLVRTLHSCS VRFPDMAANV IPVLMEFLSD NNEAAAADVL EFVREAIQRF</p> <p>DNLRMLIVEK MLEVFAIKS VKIYRGALWI LGEYCSTKED IQSVMTEIRR SLGEIPIVES</p> <p>EIKKEAGELK PEEIITVGPV QKLVTMGTY ATQSALSSSR PTKKEEDRPP LRGFLLDGDF</p> <p>FVAASLATTI TKIALRYVAL VQEKKKQNSF VAEAMLLMAT ILHLGKSSLP KKPITDDDDVD</p> <p>RISLCLKVLS ECSPLMNDIF NKECRQSLSH MLSAKLEEEK LSQKKESEKR NVTVPDDPI</p> <p>SFMQLTAKNE MNCKEDQFQL SLLAAMGNTQ RKEAADPLAS KLNKVTQLTG FSDPVYAEAY</p>
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VHVNQYDIVL DVLVWNQTS D TLQNCTLELA TLGDLKLVEK PSPLTLAPHD FANIKANVKV
ASTENGIIFG NIVYDVSGAA SDRNCVVLSD IHIDIMDIQ PATCTDAEFR QMWAEFEWEN
KVTVNTNMVD LNDYLQHILK STNMKCLTPE KALSGYCGFM AANLYARSIF GEDALANVSI
EKPIHQGPDA AVTGHIRIRA KSQGMALSLG DKINLSQKKT SI

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.
- Human COPB1 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 receipt 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:	COPB1
Alternative Name:	COPB1 (COPB1 Products)

Background:	<p>The coatomer is a cytosolic protein complex that binds to dilysine motifs and reversibly associates with Golgi non-clathrin-coated vesicles, which further mediate biosynthetic protein transport from the ER, via the Golgi up to the trans Golgi network. Coatomer complex is required for budding from Golgi membranes, and is essential for the retrograde Golgi-to-ER transport of dilysine-tagged proteins. In mammals, the coatomer can only be recruited by membranes associated to ADP-ribosylation factors (ARFs), which are small GTP-binding proteins, the complex also influences the Golgi structural integrity, as well as the processing, activity, and endocytic recycling of LDL receptors. Plays a functional role in facilitating the transport of kappa-type opioid receptor mRNAs into axons and enhances translation of these proteins. Required for limiting lipid storage in lipid droplets. Involved in lipid homeostasis by regulating the presence of perilipin family members PLIN2 and PLIN3 at the lipid droplet surface and promoting the association of adipocyte surface triglyceride lipase (PNPLA2) with the lipid droplet to mediate lipolysis (By similarity). Involved in the Golgi disassembly and reassembly processes during cell cycle. Involved in autophagy by playing a role in early endosome function. Plays a role in organellar compartmentalization of secretory compartments including endoplasmic reticulum (ER)-Golgi intermediate compartment (ERGIC), Golgi, trans-Golgi network (TGN) and recycling endosomes, and in biosynthetic transport of CAV1. Promotes degradation of Nef cellular targets CD4 and MHC class I antigens by facilitating their trafficking to degradative compartments. {ECO:0000250, ECO:0000269 PubMed:18385291, ECO:0000269 PubMed:18725938, ECO:0000269 PubMed:19364919, ECO:0000269 PubMed:20056612}.</p>
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Molecular Weight:	108.0 kDa Including tag.
UniProt:	P53618

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies
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Application Details

as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: 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