

## Datasheet for ABIN3137408 COPG Protein (AA 1-874) (His tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	COPG
Protein Characteristics:	AA 1-874
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This COPG protein is labelled with His tag.
Application:	Crystallization (Crys), ELISA, SDS-PAGE (SDS), Western Blotting (WB)

#### Product Details

Sequence:	<p>MLKKFDKKDE ESGGGSNPLQ HLEKSAVLQE ARVFNETPIN PRKCAHILTK ILYLINQGEH</p> <p>LGTTEATEAF FAMTKLFQSN DPTLRRMCYL TIKEMSCIAE DVIIVTSSLT KDMTGKEDNY</p> <p>RGPAVRALCQ ITDSTMLQAV ERYMKQAIVD KVPSVSSSAL VSSLHLLKCS FDVVKRWVNE</p> <p>AQEAASSDNI MVQYHALGLL YHVRKNDRLA VSKMISKFTR HGLKSPFAYC MMIRVASKQL</p> <p>EEEDGSRDSP LFDIESCLR NKHEMVVYEA ASAINLPGC SAKELAPAVS VLQLFCSSPK</p> <p>AALRYAAVRT LNKVAMKHPS AVTACNLDLE NLVTDSNRSI ATLAITTLK TGSESSIDRL</p> <p>MKQISSFMSE ISDEFKVVVV QAISALCQKY PRKHAVLMNF LFTMLREEGG FEYKRAIVDC</p> <p>IISIIIEENSE SKETGLSHLC EFIEDCEFTV LATRILHLLG QEGPKTNNS KYIRFIYNRV VLEHEEVRA</p> <p>AVSALAKFGA QNEEMLPSIL VLLKRCVMDD DNEVRDRATF YLNVLEQKQK ALNAGYILNG</p> <p>LTVSIPGLEK ALQQYTLEPS EKPFDLKSVP LATTPMAEQR PESTATAAVK QPEKVAATRQ</p> <p>EIFQEQLAAV PEFQGLGPLF KSSPEPVALT ESETEYVIRC TKHTFSDHLV FQFDCTNTLN</p> <p>DQTLENTVTQ MEPTAYEVL SYVPARSLPY NQPGTCYTLV ALPTEDPTAV ACTFSCVMKF</p>
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TVKDCDPNTG EIDEEGYEDE YVLEDLEVTV ADHIQKVMKV NFEEAAWDEVG DEFEKEETFT  
LSTIKTLEEA VGNIVKFLGM HPCERSDKVP ENKNTHLLLL AGVFRGGHDI LVRSRLLLLD  
TVTMQVTARS SEELPVDIIL ASVG

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Copg1 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.

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### 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Sterility:

0.22 µm filtered

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## Product Details

Endotoxin Level: Protein is endotoxin free.

Grade: Crystallography grade

## Target Details

Target: COPG

Alternative Name: Copg1 ([COPG Products](#))

Background: 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 (By similarity). 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 triglyceride lipase (PNPLA2) with the lipid droplet surface to mediate lipolysis. {ECO:0000250, ECO:0000269|PubMed:19067489}.

Molecular Weight: 98.5 kDa Including tag.

UniProt: [Q9QZE5](#)

## 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.

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