



[Go to Product page](#)

Datasheet for ABIN3091769  
**C3 Protein (AA 749-1663) (His tag)**

### Overview

Quantity:	1 mg
Target:	C3
Protein Characteristics:	AA 749-1663
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This C3 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

### Product Details

Sequence: SNLDEDIIAE ENIVSRSEFP ESWLWNVEDL KEPPKNGIST KLMNIFLKDS ITTWEILAVS  
MSDKKGICVA DPFEVTVMQD FFIDLRLPYS VVRNEQVEIR AVLYNYRQNO ELKVRVELLH  
NPAFCSLATT KRRHQQTVTI PPKSSLSVPY VIVPLKTGLQ EVEVKAAYYH HFISDGVVRKS  
LKVVEGIRM NKTVAVRTLD PERLGREGVQ KEDIPPADLS DQVPDTESET RILLQGTPVA  
QMTEDAVIDAE RLKHLIVTPS GCGEQNMIGM TPTVIAVHYL DETEQWEKFG LEKRQGALEL  
IKKGYTQQLA FRQPSSAFAA FVKRAPSTWL TAYVVKVFSL AVNLIARDSQ VLCGAVKWLI  
LEKQKPDGVF QEDAPVIHQE MIGGLRNNNE KDMALTAFVL ISLQEAKDIC EEQVNSLPGS  
ITKAGDFLEA NYMNLQRSYT VAIAGYALAQ MGRLKGPLLN KFLTTAKDKN RWEDPGKQLY  
NVEATSYALL ALLQLKDFDF VPPVVRWLNE QRYYGGGYGS TQATFMVFQA LAQYQKDAPD  
HQELNLDVSL QLPSRSSKIT HRIHWESASL LRSEETKENE GFTVTAEGKG QGTLVVTMY  
HAKAKDQLTC NKFDLKVTIK PAPETEKRPQ DAKNTMILEI CTRYRGDQDA TMSILDISMM  
TGFAPDTDDL KQLANGVDYR ISKYELDKAF SDRNTLIYIY DKVSHSEDDC LAFKVHQYFN

VELIQPGAVK VYAYYNLEES CTRFYHPEKE DGKLNKLCRD ELCRCAEENC FIQKSDDKVT  
LEERLDKACE PGVDYVYKTR LVKVQLSNDF DEYIMAIEQT IKSGSDEVQV GQQRTEFISPI  
KCREALKLEE KKHYLMWGLS SDFWGEKPNL SYIIGKDTWV EHWPEEDECQ DEENQKQCQD  
LGAFTESMVV FGCPN

**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.
- Human C3 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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## Product Details

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

## Target Details

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Target:	C3
Alternative Name:	C3 ( <a href="#">C3 Products</a> )
Background:	<p>C3 plays a central role in the activation of the complement system. Its processing by C3 convertase is the central reaction in both classical and alternative complement pathways. After activation C3b can bind covalently, via its reactive thioester, to cell surface carbohydrates or immune aggregates., Derived from proteolytic degradation of complement C3, C3a anaphylatoxin is a mediator of local inflammatory process. In chronic inflammation, acts as a chemoattractant for neutrophils (By similarity). It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and basophilic leukocytes. {ECO:0000250}, C3-beta-c: Acts as a chemoattractant for neutrophils in chronic inflammation. {ECO:0000250}, Acylation stimulating protein: adipogenic hormone that stimulates triglyceride (TG) synthesis and glucose transport in adipocytes, regulating fat storage and playing a role in postprandial TG clearance. Appears to stimulate TG synthesis via activation of the PLC, MAPK and AKT signaling pathways. Ligand for C5AR2. Promotes the phosphorylation, ARRB2-mediated internalization and recycling of C5AR2 (PubMed:8376604, PubMed:2909530, PubMed:9059512, PubMed:10432298, PubMed:15833747, PubMed:16333141, PubMed:19615750). {ECO:0000269 PubMed:10432298, ECO:0000269 PubMed:15833747, ECO:0000269 PubMed:16333141, ECO:0000269 PubMed:19615750, ECO:0000269 PubMed:2909530, ECO:0000269 PubMed:8376604, ECO:0000269 PubMed:9059512}.</p>
Molecular Weight:	104.9 kDa Including tag.
UniProt:	<a href="#">P01024</a>
Pathways:	<a href="#">Complement System</a> , <a href="#">Regulation of Leukocyte Mediated Immunity</a> , <a href="#">Positive Regulation of Immune Effector Process</a> , <a href="#">Regulation of G-Protein Coupled Receptor Protein Signaling</a>

## Application Details

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

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

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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)