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# C3 Protein (AA 1002-1303) (His tag)



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Quantity:	1 mg
Target:	C3
Protein Characteristics:	AA 1002-1303
Origin:	Mouse
Source:	Escherichia coli (E. coli)
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:	HLIVTPAGCG EQNMIGMTPT VIAVHYLDQT EQWEKFGIEK RQEALELIKK GYTQQLAFKQ
	PSSAYAAFNN RPPSTWLTAY VVKVFSLAAN LIAIDSHVLC GAVKWLILEK QKPDGVFQED
	GPVIHQEMIG GFRNAKEADV SLTAFVLIAL QEARDICEGQ VNSLPGSINK AGEYIEASYM
	NLQRPYTVAI AGYALALMNK LEEPYLGKFL NTAKDRNRWE EPDQQLYNVE ATSYALLALL
	LLKDFDSVPP VVRWLNEQRY YGGGYGSTQA TFMVFQALAQ YQTDVPDHKD LNMDVSFHLP SR
	Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a
	special request, please contact us.
Characteristics:	<ul> <li>Made in Germany - from design to production - by highly experienced protein experts.</li> <li>Mouse C3 Protein (raised in E. Coli) purified by multi-step, protein-specific process to ensure crystallization grade.</li> <li>State-of-the-art algorithm used for plasmid design (Gene synthesis).</li> </ul>

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 bacterial culture:

- 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.
- 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.

Sterility:

0.22 µm filtered

Endotoxin Level:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

#### **Target Details**

Target:	C3	
Alternative Name:	C3 (C3 Products)	
Background:	d: 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. The short isoform has B-cell stimulatory activity. {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.

Molecular Weight:	34.8 kDa Including tag.	
UniProt:	P01027	
Pathways:	Complement System, Regulation of Leukocyte Mediated Immunity, Positive Regulation of	
	Immune Effector Process, Regulation of G-Protein Coupled Receptor Protein Signaling	

# 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

## Handling

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