

Datasheet for ABIN3091764

## C3 Protein (AA 23-667) (His tag)



[Go to Product page](#)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	C3
Protein Characteristics:	AA 23-667
Origin:	Human
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: SPMYSIITPN ILRLESEETM VLEAHDAQGD VPVTVTVHDF PGKKLVLSSE KTVLTPATNH  
 MGNVTFTIPA NREFKSEKGR NKFVTVQATF GTQVVEKVVL VSLQSGYLFQ QTDKTIYTPG  
 STVLYRIFTV NHKLLPVGRT VMVNINPEG IPVKQDSLSS QNQLGVLPPLS WDIPELVNMG  
 QWKIRAYYEN SPQQVFSTEF EVKEYVLPSP EVIVEPTEKF YYIYNEKGLV VTITARFLYG  
 KKVEGTAFVI FGIQDGEQRI SLPESLKRIP IEDGSGEVVL SRKVLLDGVQ NPRAEDLVGK  
 SLYVSATVIL HSGSDMVQAE RSGIPIVTSF YQIHFTKTPK YFKPGMPFDL MVFVTNPDGS  
 PAYRVPVAVQ GEDTVQSLTQ GDGVAKLSIN THPSQKPLSI TVRTKKQELS EAEQATRTMQ  
 ALPYSTVGNS NNYLHLSVLR TELRPGETLN VNFLLRMDRA HEAKIRYYTY LIMNKGRLK  
 AGRQVREPGQ DLVVLPLSIT TDFIPSFRLV AYYTLIGASG QREVVADSVW VDVKDSCVGS  
 LVVKSQSED RQVPVPGQMT LKIEGDHGAR VVLVAVDKGV FVLNKKNKLT QSKIWDVVEK  
 ADIGCTPGSG KDYAGVFSDA GLTFTSSSGQ QTAQRAELQC PQPAA

**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 C3 Protein (raised in E. Coli) 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 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.
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.

#### 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 ( <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:	72.3 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

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:	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.

## Application Details

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