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# **TNFAIP3 Protein (AA 2-775) (His tag)**



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#### Overview

Quantity:	1 mg
Target:	TNFAIP3
Protein Characteristics:	AA 2-775
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TNFAIP3 protein is labelled with His tag.
Application:	Western Blotting (WB), ELISA, SDS-PAGE (SDS), Crystallization (Crys)

#### **Product Details**

### Sequence:

AEQLLPQALY LSNMRKAVKI RERTPEDIFK PTNGIIYHFK TMHRYTLEMF RTCQFCPQFR
EIIHKALIDR SVQASLESQK KLNWCREVRK LVALKTNGDG NCLMHAACQY MWGVQDTDLV
LRKALCSTLK ETDTRNFKFR WQLESLKSQE FVETGLCYDT RNWNDEWDNL VKMASADTPA
ARSGLQYNSL EEIHIFVLSN ILRRPIIVIS DKMLRSLESG SNFAPLKVGG IYLPLHWPAQ
ECYRYPIVLG YDSQHFVPLV TLKDSGPELR AVPLVNRDRG RFEDLKVHFL TDPENEMKEK
LLKEYLIVME IPVQGWDHGT THLINAAKLD EANLPKEINL VDDYFELVQH EYKKWQENSD
QARRAAHAQN PLEPSTPQLS LMDIKCETPN CPFFMSVNTQ PLCHECSERR QKNQSKLPKL
NSKLGPEGLP GVGLGSSNWS PEETAGGPHS APPTAPSLFL FSETTAMKCR SPGCPFTLNV
QHNGFCERCH ARQINASHTA DPGKCQACLQ DVTRTFNGIC STCFKRTTAE PSSSLTSSIP
ASCHQRSKSD PSQLIQSLTP HSCHRTGNVS PSGCLSQAAR TPGDRAGTSK CRKAGCMYFG
TPENKGFCTL CFIEYRENKQ SVTASEKAGS PAPRFQNNVP CLGRECGTLG STMFEGYCQK
CFIEAQNQRF HEARRTEEQL RSSQHRDMPR TTQVASRLKC ARASCKNILA CRSEELCMEC

Purity:

Sterility:

Endotoxin Level:

QHLSQRVGSV AHRGEPTPEE PPKQRCRAPA CDHFGNAKCN GYCNECYQFK QMYG 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. · Mouse Tnfaip3 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 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 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.

0.22 µm filtered

Protein is endotoxin free.

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

Grade:

Crystallography grade

### **Target Details**

Target: TNFAIP3

Alternative Name: Tnfaip3 (TNFAIP3 Products)

Background:

Ubiquitin-editing enzyme that contains both ubiquitin ligase and deubiquitinase activities. Involved in immune and inflammatory responses signaled by cytokines, such as TNF-alpha and IL-1 beta, or pathogens via Toll-like receptors (TLRs) through terminating NF-kappa-B activity. Essential component of a ubiquitin-editing protein complex, comprising also RNF11, ITCH and TAX1BP1, that ensures the transient nature of inflammatory signaling pathways. In cooperation with TAX1BP1 promotes disassembly of E2-E3 ubiquitin protein ligase complexes in IL-1R and TNFR-1 pathways, affected are at least E3 ligases TRAF6, TRAF2 and BIRC2, and E2 ubiquitinconjugating enzymes UBE2N and UBE2D3. In cooperation with TAX1BP1 promotes ubiquitination of UBE2N and proteasomal degradation of UBE2N and UBE2D3. Upon TNF stimulation, deubiquitinates 'Lys-63'-polyubiquitin chains on RIPK1 and catalyzes the formation of 'Lys-48'-polyubiquitin chains. This leads to RIPK1 proteasomal degradation and consequently termination of the TNF- or LPS-mediated activation of NF-kappa-B. Deubiquitinates TRAF6 probably acting on 'Lys-63'-linked polyubiquitin. Upon T-cell receptor (TCR)-mediated T-cell activation, deubiquitinates 'Lys-63'-polyubiquitin chains on MALT1 thereby mediating disassociation of the CBM (CARD11:BCL10:MALT1) and IKK complexes and preventing sustained IKK activation. Deubiquitinates NEMO/IKBKG, the function is facilitated by TNIP1 and leads to inhibition of NF-kappa-B activation. Upon stimulation by bacterial peptidoglycans, probably deubiquitinates RIPK2. Can also inhibit I-kappa-B-kinase (IKK) through a non-catalytic mechanism which involves polyubiquitin, polyubiquitin promotes association with IKBKG and prevents IKK MAP3K7-mediated phosphorylation. Targets TRAF2 for lysosomal degradation. In vitro able to deubiquitinate 'Lys-11'-, 'Lys-48'- and 'Lys-63' polyubiquitin chains. Inhibitor of programmed cell death. Has a role in the function of the lymphoid system. Required for LPSinduced production of proinflammatory cytokines and IFN beta in LPS-tolerized macrophages. {ECO:0000269|PubMed:10385526, ECO:0000269|PubMed:11389905, ECO:0000269|PubMed:15334086, ECO:0000269|PubMed:18342009, ECO:0000269|PubMed:20185725, ECO:0000269|PubMed:23609450}.

Molecular Weight:

88.5 kDa Including tag.

UniProt:

Q60769

Pathways:

TLR Signaling, Activation of Innate immune Response, Cellular Response to Molecule of

## Bacterial Origin, Production of Molecular Mediator of Immune Response

# **Application Details**

Expiry Date:

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
Storage Comment:	Store at -80°C.

Unlimited (if stored properly)