Datasheet for ABIN3095946

# TNFAIP3 Protein (AA 2-790) (His tag)

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## 1 Image

## Overview

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| Quantity: | 1 mg |
| Target: | TNFAIP3 |
| Protein Characteristics: | AA 2-790 |
| Origin: | Human |
| 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

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| Sequence: | AEQVLPQALY LSNMRKAVKI RERTPEDIFK PTNGIIHHFK TMHRYTLEMF RTCQFCPQFR EIIHKALIDR NIQATLESQK KLNWCREVRK LVALKTNGDG NCLMHATSQY MWGVQDTDLV LRKALFSTLK ETDTRNFKFR WQLESLKSQE FVETGLCYDT RNWNDEWDNL IKMASTDTPM ARSGLQYNSL EEIHIFVLCN ILRRPIIVIS DKMLRSLESG SNFAPLKVGG IYLPLHWPAQ ECYRYPIVLG YDSHHFVPLV TLKDSGPEIR AVPLVNRDRG RFEDLKVHFL TDPENEMKEK LLKEYLMVIE IPVQGWDHGT THLINAAKLD EANLPKEINL VDDYFELVQH EYKKWQENSE QGRREGHAQN PMEPSVPQLS LMDVKCETPN CPFFMSVNTQ PLCHECSERR QKNQNKLPKL NSKPGPEGLP GMALGASRGE AYEPLAWNPE ESTGGPHSAP PTAPSPFLFS ETTAMKCRSP GCPFTLNVQH NGFCERCHNA RQLHASHAPD HTRHLDPGKC QACLQDVTRT FNGICSTCFK RTTAEASSSL STSLPPSCHQ RSKSDPSRLV RSPSPHSCHR AGNDAPAGCL SQAARTPGDR TGTSKCRKAG CVYFGTPENK GFCTLCFIEY RENKHFAAAS GKVSPTASRF QNTIPCLGRE CGTLGSTMFE GYCQKCFIEA QNQRFHEAKR TEEQLRSSQR RDVPRTTQST SRPKCARASC |

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| | KNILACRSEE LCMECQHPNQ RMGPGAHRGE PAPEDPPKQR CRAPACDHFG NAKCNGYCNE CFQFKQMYG<br>**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.<br>• Human TNFAIP3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br>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.<br>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).<br>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.<br>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.<br>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:<br>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.<br>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: | Protein is endotoxin free. |

## Product Details

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| Grade: | Crystallography grade |

## Target Details

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| 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 ubiquitin-conjugating 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 LPS-induced production of proinflammatory cytokines and IFN beta in LPS-tolerized macrophages. {ECO:0000269\|PubMed:14748687, ECO:0000269\|PubMed:15258597, ECO:0000269\|PubMed:16684768, ECO:0000269\|PubMed:17961127, ECO:0000269\|PubMed:18164316, ECO:0000269\|PubMed:18952128, ECO:0000269\|PubMed:19494296, ECO:0000269\|PubMed:22099304, ECO:0000269\|PubMed:23827681, ECO:0000269\|PubMed:8692885, ECO:0000269\|PubMed:9299557, ECO:0000269\|PubMed:9882303}. |

## Target Details

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| Molecular Weight: | 90.4 kDa Including tag. |
| UniProt: | P21580 |
| Pathways: | TLR Signaling, Activation of Innate immune Response, Cellular Response to Molecule of Bacterial Origin, Production of Molecular Mediator of Immune Response |

## Application Details

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| 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: | 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) |


**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process

 