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# TNFAIP3 Antibody

Catalog # ASC10895

## Product Information

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| **Application** | WB, IF, E, IHC-P |
| **Primary Accession** | Q60769 |
| **Other Accession** | Q60769, 2498097 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 87654 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | TNFAIP3 antibody can be used for detection of TNFAIP3 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL. |

## Additional Information

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| **Gene ID** | 21929 |
| **Other Names** | Tumor necrosis factor alpha-induced protein 3, TNF alpha-induced protein 3, 3.4.19.12, 6.3.2.-, Putative DNA-binding protein A20, Zinc finger protein A20, Tnfaip3, Tnfip3 |
| **Target/Specificity** | Tnfaip3; |
| **Reconstitution & Storage** | TNFAIP3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| **Precautions** | TNFAIP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | Tnfaip3 |
| **Synonyms** | Tnfip3 |
| **Function** | Ubiquitin-editing enzyme that contains both ubiquitin ligase and deubiquitinase activities. Involved in immune and inflammatory responses signaled by cytokines, such as TNF 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 |

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| | 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 pro- inflammatory cytokines and IFN beta in LPS-tolerized macrophages. |
| **Cellular Location** | Cytoplasm. Nucleus. Lysosome |
| **Tissue Location** | Found in most tissues during development. Strikingly high levels are found in lymphoid organs, including the thymus, spleen, and gut-associated lymphoid tissue. Constitutively expressed in immature and mature thymocyte subpopulations as well as in resting peripheral T-cells; activation of these leads to down- regulation |

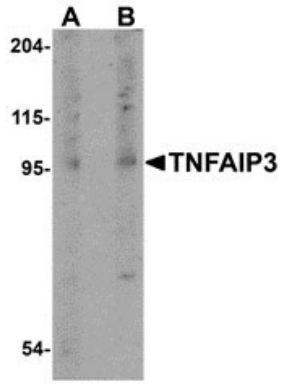
## Background

TNFAIP3 Antibody: TNFAIP3, also known as A20, is located in chromosome band 6q23, a region that is often deleted in B cell lymphomas. Recently, it was identified as a tumor suppressor gene in Hodgkin lymphoma and several subtypes of non-Hodgkin lymphomas. TNFAIP3 was initially identified as a zinc-finger protein that is rapidly and transiently induced by TNF-α, inhibiting NF-κB-dependent gene expression, and protecting cells from TNF-α-cytotoxicity. Overexpression of TNFAIP3 also inhibits the TLR2- and TLR4-mediated interleukin-8 synthesis in airway epithelial cells, suggesting that TNFAIP3 also acts as a negative regulator of TLR-mediated inflammatory responses, thereby protecting the host against harmful over-responses to pathogens. At least two isoforms of TNFAIP3 are known to exist.

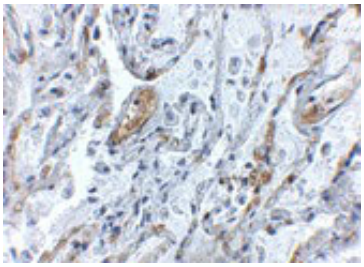
## References

Zhang YP, Matthiesen S, Harder R, et al. A 3-cM commonly deleted region in 6q21 in leukemias and lymphomas delineated by fluorescence in situ hybridization. Genes Chromosomes Cancer2000; 27:52-58.
Schmitz R, Hansmann M-L, Bohle V, et al. TNFAIP3 (A20) is a tumor suppressor gene in Hodgkin lymphoma and primary mediastinal B cell lymphoma. J. Exp. Med.2009; 206:981-9.
Honma K, Tsuzuki S, Nakagawa M, et al. TNFAIP3/A20 functions as a novel tumor suppressor gene in several subtypes of non-Hodgkins lymphomas. Blood2009; epub.
Opipari AW Jr, Hu MN, Yabkowitz R, et al. The A20 zinc finger protein protects cells from tumor necrosis factor cytotoxicity. J. Biol. Chem.1992; 267:12424-7.

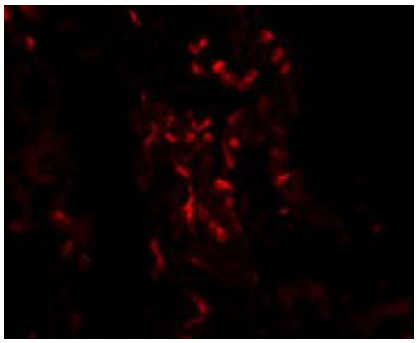
## Images




Western blot analysis of TNFAIP3 in rat lung tissue lysate with TNFAIP3 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of TNFAIP3 in human lung tissue with TNFAIP3 antibody at 5 µg/mL.



Immunofluorescence of TNFAIP3 in Human Lung cells with TNFAIP3 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.