

TNFAIP3 / A20 Antibody

Goat Polyclonal Antibody Catalog # ALS13001

Specification

TNFAIP3 / A20 Antibody - Product Information

Application IHC Primary Accession P21580

Reactivity Human, Rabbit, Monkey

Host Goat
Clonality Polyclonal
Calculated MW 90kDa KDa

TNFAIP3 / A20 Antibody - Additional Information

Gene ID 7128

Other Names

Tumor necrosis factor alpha-induced protein 3, TNF alpha-induced protein 3, 3.4.19.12, 6.3.2.-, OTU domain-containing protein 7C, Putative DNA-binding protein A20, Zinc finger protein A20, A20p50, A20p37, TNFAIP3, OTUD7C

Target/Specificity

Human TNFAIP3.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

TNFAIP3 / A20 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TNFAIP3 / A20 Antibody - Protein Information

Name TNFAIP3

Synonyms OTUD7C

Function

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 pro- inflammatory cytokines and IFN beta in LPS-tolerized macrophages.

Cellular Location

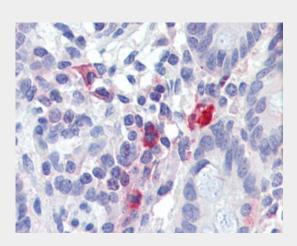
Cytoplasm. Nucleus. Lysosome.

TNFAIP3 / A20 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

TNFAIP3 / A20 Antibody - Images



Anti-TNFAIP3 antibody IHC of human small intestine.

TNFAIP3 / A20 Antibody - Background

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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' polyubiguitin 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.

TNFAIP3 / A20 Antibody - References

Opipari A.W. Jr., et al.J. Biol. Chem. 265:14705-14708(1990).
Ota T., et al.Nat. Genet. 36:40-45(2004).
Mungall A.J., et al.Nature 425:805-811(2003).
Mural R.J., et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Bechtel S., et al.BMC Genomics 8:399-399(2007).