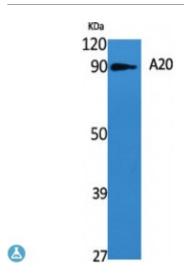


Anti-A20 antibody



Description Rabbit polyclonal to A20.

Model STJ91402

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, IF, WB

Immunogen Synthesized peptide derived from human A20

Immunogen Region 290-370 aa, Internal

Gene ID <u>7128</u>

Gene Symbol TNFAIP3

Dilution range WB 1:500-1:2000IF 1:200-1:1000ELISA 1:20000

Specificity A20 Polyclonal Antibody detects endogenous levels of A20 protein.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Tumor necrosis factor alpha-induced protein 3 TNF alpha-induced protein 3

OTU domain-containing protein 7C Putative DNA-binding protein A20 Zinc

finger protein A20 A20p50 A20p37

Molecular Weight 90 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:11896OMIM:191163</u>

Alternative Names Tumor necrosis factor alpha-induced protein 3 TNF alpha-induced protein 3

OTU domain-containing protein 7C Putative DNA-binding protein A20 Zinc

finger protein A20 A20p50 A20p37

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 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 LPS-induced production of proinflammatory cytokines and IFN beta in LPS-tolerized macrophages.

Sequence and Domain Family

The A20-type zinc fingers mediate the ubiquitin ligase activity. The A20-type zinc finger 4 selectively recognizes 'Lys-63'-linked polyubiquitin. The A20-type zinc finger 4-7 are sufficient to bind polyubiquitin. The OTU domain mediates the deubiquitinase activity.

Cellular Localization

Cytoplasm. Nucleus. Lysosome.. A20p50: Cytoplasm.

Post-translational Modifications Proteolytically cleaved by MALT1 upon TCR stimulation; disrupts NF-kappa-B inhibitory function and results in increased IL-2 production. It is proposed that only a fraction of TNFAIP3 colocalized with TCR and CBM complex is cleaved, leaving the main TNFAIP3 pool intact.

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