

**A20/TNFAIP3 (D13H3) Rabbit mAb**

**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, W-S, IP	H M R Mk	Endogenous	82	Rabbit IgG	#P21580	7128

**Product Usage Information****Application**

Western Blotting  
Simple Western™  
Immunoprecipitation

**Dilution**

1:1000  
1:10 - 1:50  
1:100

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

A20/TNFAIP3 (D13H3) Rabbit mAb recognizes endogenous levels of total A20/TNFAIP3 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human A20/TNFAIP3 protein. The antibody was prepared in collaboration with Dr. Marc Schmidt-Supprian, Max Planck Institute of Biochemistry.

**Background**

A20, also referred to as TNF- $\alpha$ -induced protein 3 (TNFAIP3), is cytokine-inducible protein that functions to inhibit apoptosis and activate NF- $\kappa$ B (1,2). It was first identified as a TNF- $\alpha$  inducible primary response gene in human umbilical vein endothelial cells, and encodes a 790-amino acid protein containing seven Cys2/Cys2-zinc finger motifs (3). Constitutive expression of A20 is observed in lymphoid tissues (4), but it is transiently expressed in a variety of cell types in response to inflammatory signals such as TNF- $\alpha$  (3,5), IL-1 (3,5), phorbol esters (6), and LPS (7). Expression of A20 can confer resistance to apoptosis and NF- $\kappa$ B activation triggered by these signals, probably through interference with TRAF (TNF receptor associated factor) family members (8,9), and interaction with the NF- $\kappa$ B inhibiting protein ABIN (10). Studies also show that A20 contains site-specific ubiquitin modifying activity that can contribute to its biological functions (11,12). The amino-terminus of A20 contains deubiquitinating (DUB) activity for Lys63 branches, such as those found in TRAF6 and RIP, while the carboxyl-terminus contains ubiquitin ligase (E3) activity for Lys48 branches of the same substrates and leads to their degradation (12).

**Background References**

1. Beyaert, R. et al. (2000) *Biochem Pharmacol* 60, 1143-51.
2. Lee, E.G. et al. (2000) *Science* 289, 2350-4.
3. Dixit, V.M. et al. (1990) *J Biol Chem* 265, 2973-8.
4. Tewari, M. et al. (1995) *J Immunol* 154, 1699-706.
5. Jäättelä, M. et al. (1996) *J Immunol* 156, 1166-73.
6. Laherty, C.D. et al. (1993) *J Biol Chem* 268, 5032-9.
7. Hu, X. et al. (1998) *Blood* 92, 2759-65.
8. Song, H.Y. et al. (1996) *Proc Natl Acad Sci USA* 93, 6721-5.
9. Heyninck, K. and Beyaert, R. (1999) *FEBS Lett* 442, 147-50.
10. Heyninck, K. et al. (1999) *J Cell Biol* 145, 1471-82.
11. Evans, P.C. et al. (2004) *Biochem J* 378, 727-34.
12. Lin, S.C. et al. (2008) *J Mol Biol* 376, 526-40.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **W-S:** Simple Western™ **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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