

#4919 Store at -20°C

Ubc13 Antibody



✓ 100 µl
(10 western blots)

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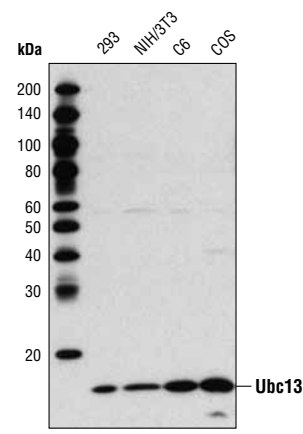
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Mk	16 kDa	Rabbit**

Protein ubiquitination is an important posttranslational modification that regulates protein function and fate (1). Ubiquitin (Ub) can be conjugated to target proteins in either monomeric or polymeric forms. There are several different lysine residues within Ub that can be used as conjugation sites for poly-Ub chain formation. Different poly-Ub linkages mediate different functions of the target protein ranging from alterations in protein function to degradation (2). UBE2N/Ubc13 is a ubiquitin-E2-conjugating enzyme that catalyzes K63-linked poly-Ub chain formation (1,2). UBE2N forms a heterodimer with MMS2 or Uev1A to exert its E2 ligase function. The UBE2N/MMS2 and UBE2N/Uev1A heterodimers catalyze different modes of target protein ubiquitination to mediate various signaling pathways (3-5) including: DNA damage and recombination, p53 and check point control, the cell cycle (6-10), immunoreceptor signaling (11,12), and endocytosis (13). Most recently, UBE2N was shown to play an important role in inflammatory signaling by promoting K63-linked ubiquitination and activation of IKK downstream of the IL-1β receptor (14). Furthermore, interaction of UBE2N with the Triad1 E3 protein-ubiquitin ligase was shown to play an important role in myelopoiesis (15).

Specificity/Sensitivity: Ubc13 Antibody detects endogenous levels of Ubc13 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile10 of human Ubc13 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell lines using Ubc13 Antibody.

Entrez-Gene ID #7334
Swiss-Prot Acc. #P61088

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

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

Background References:

- (1) Herrmann, J. et al. (2007) *Circ Res* 100, 1276-91.
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- (3) Hofmann, R.M. and Pickart, C.M. (1999) *Cell* 96, 645-53.
- (4) Deng, L. et al. (2000) *Cell* 103, 351-61.
- (5) Andersen, P.L. et al. (2005) *J Cell Biol* 170, 745-55.
- (6) Zhao, G.Y. et al. (2007) *Mol Cell* 25, 663-75.
- (7) Kolas, N.K. et al. (2007) *Science* 318, 1637-40.
- (8) Laine, A. et al. (2006) *Mol Cell Biol* 26, 8901-13.
- (9) Huen, M.S. et al. (2008) *Mol Cell Biol* 28, 6104-12.
- (10) Loring, G.L. et al. (2008) *Cell Cycle* 7, 96-105.
- (11) Yamamoto, M. et al. (2006) *Nat Immunol* 7, 962-70.
- (12) Yamamoto, M. et al. (2006) *J Immunol* 177, 7520-4.
- (13) Duncan, L.M. et al. (2006) *EMBO J* 25, 1635-45.
- (14) Xu, M. et al. (2009) *Mol Cell* 36, 302-14.
- (15) Martejijn, J.A. et al. (2009) *Leukemia* 23, 1480-9.

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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.