

#3933 Store at -20°C

# Ubiquitin Antibody

✓ 100 µl  
(10 western blots)



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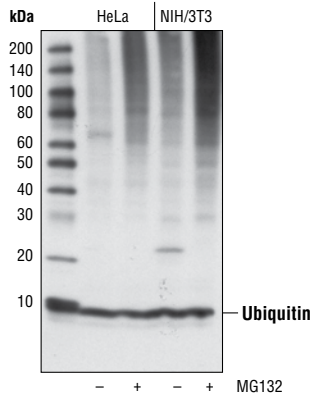
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Source
W, IHC-P Endogenous	H, M, R, (Mk, Pg, B, Dm, X, Z, Hr)	Rabbit**

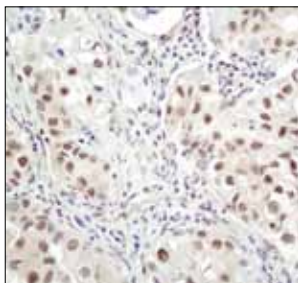
**Background:** Ubiquitin is a conserved polypeptide unit that plays an important role in the ubiquitin-proteasome pathway. Ubiquitin can be covalently linked to many cellular proteins by the ubiquitination process, which targets proteins for degradation by the 26S proteasome. Three components are involved in the target protein-ubiquitin conjugation process. Ubiquitin is first activated by forming a thioester complex with the activation component E1; the activated ubiquitin is subsequently transferred to the ubiquitin-carrier protein E2, then from E2 to ubiquitin ligase E3 for final delivery to the epsilon-NH2 of the target protein lysine residue (1-3). The ubiquitin-proteasome pathway has been implicated in a wide range of normal biological processes and in disease-related abnormalities. Several proteins such as IκB, p53, cdc25a and bcl-2 have been shown to be targets for the ubiquitin-proteasome process as part of regulation of cell cycle progression, differentiation, cell stress response and apoptosis (4-7).

**Specificity/Sensitivity:** Ubiquitin Antibody detects ubiquitin, polyubiquitin and ubiquitinated proteins. This antibody may cross-react with recombinant NEDD8.

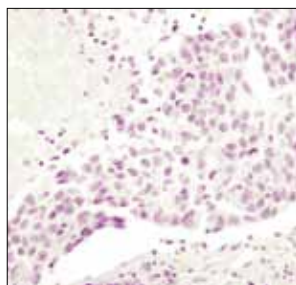
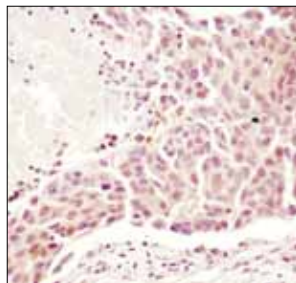
**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of the human ubiquitin protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from HeLa and NIH/3T3 cells, untreated or treated with the proteasome inhibitor MG132 (10 µM for 90 minutes), using Ubiquitin Antibody.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using Ubiquitin Antibody.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Ubiquitin Antibody in the presence of control peptide (upper) or antigen-specific peptide (lower).

Entrez-Gene ID #7311  
Swiss-Prot Acc. #P62988

**Storage:** Supplied in 10 mM sodium 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
Immunohistochemistry (Paraffin)	1:800
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**Background References:**

- (1) Ciechanover, A. (1998) *EMBO J.* 17, 7151-7160.
- (2) Hochstrasser, M. (2000) *Nat. Cell Biol.* 2, E153-E157.
- (3) Hochstrasser, M. (2000) *Science* 289, 563-564.
- (4) Bernardi, R. et al. (2000) *Oncogene* 19, 2447-2454.
- (5) Aberler, H. et al. (1997) *EMBO J.* 16, 3797-3804.
- (6) Salomoni, P. and Pandolfi, P.P. (2002) *Nat. Cell Biol.* 4, E152-E153.
- (7) Jesenberger, V. and Jentsch, S. (2002) *Nat. Rev. Mol. Cell Biol.* 3, 112-121.

**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.

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**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.