

#4918 Store at -20°C

# Ubc9 Antibody



100 µl  
(10 Western mini-blot)

**Orders** ■ 877-616-CELL (2355)  
orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
info@cellsignal.com  
**Web** ■ www.cellsignal.com

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This product is for *in vitro* research use only and is not intended for use in humans or animals.  
This product is not intended for use as a therapeutic or in diagnostic procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, M, R, Mk	17 kDa	Rabbit**

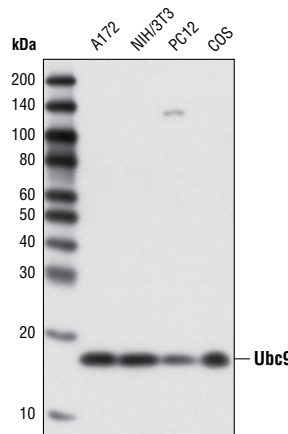
**Background:** The process of SUMO-1 conjugation is similar to that seen with ubiquitin and other forms of post-translational protein modification (1). Like ubiquitin, SUMO-1 is conjugated to its target protein by the coordinated action of ubiquitin conjugation enzymes E1, E2 and E3 (2). Ubc9 (or ube2M) is a highly conserved, 158 amino acid protein that acts as a SUMO-1 conjugating enzyme (3). Ubc9 binds to target proteins through their SUMO-1-CS (consensus sequence) domains and interacts with SUMO via the structurally conserved N-terminal domain (3,4). Localization of Ubc9 to the nucleus and the nuclear envelope allows this enzyme to catalyze target protein sumoylation and regulate target protein nucleocytoplasmic transport and transcriptional activity (5,6). Ubc9 target proteins include a host of proteins (RAD51, RAD52, p53 and c-Jun) that regulate the cell cycle, DNA repair, and p53-dependent processes (7).

**Specificity/Sensitivity:** Ubc9 Antibody detects endogenous levels of total Ubc9 protein.

**Source/Purification:** Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to residues surrounding V148 of human Ubc9. Antibodies are purified by peptide affinity chromatography.

### Background References:

- (1) Geiss-Friedlander, R. and Melchior, F. (2007) *Nat Rev Mol Cell Biol* 8, 947–56.
- (2) Tatham, M.H. et al. (2003) *Biochemistry* 42, 3168–79.
- (3) Sampson, D.A. et al. (2001) *J Biol Chem* 276, 21664–9.
- (4) Liu, Q. et al. (1999) *J Biol Chem* 274, 16979–87.
- (5) Lee, G.W. et al. (1998) *J Biol Chem* 273, 6503–7.
- (6) Pichler, A. and Melchior, F. (2002) *Traffic* 3, 381–7.
- (7) Mo, Y.Y. and Moschos, S.J. (2005) *Expert Opin Ther Targets* 9, 1203–16.



Western blot analysis of extracts from various cell lines using Ubc9 Antibody.

Entrez-Gene ID #7329  
Swiss-Prot Acc. #P63279

**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.cellsignal.com](http://www.cellsignal.com).**

### Companion Products:

Phototope®-HRP Western Blot Detection System, Anti-rabbit IgG, HRP-linked Antibody #7071

Anti-rabbit IgG, HRP-linked Antibody #7074

Prestained Protein Marker, Broad Range (Premixed Format) #7720

Biotinylated Protein Ladder Detection Pack #7727

20X LumiGLO® Reagent and 20X Peroxide #7003

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

**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—ELISA 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—zebra fish B—bovine  
Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.