

Ubc12 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	21 kDa	Rabbit**

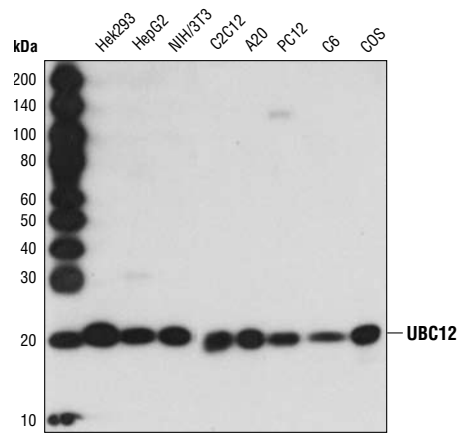
Background: Similar to ubiquitin, Nedd8 signals to target proteins through an enzymatic cascade composed of Nedd8-specific E1 (activating)- and E2 (conjugating)-enzymes (1,2). The E2 specific for Nedd8 is Ubc12 (3-5). Ubc12 forms a heterodimeric conjugate with NEDD8 in order to catalyze the transfer of NEDD8 from E1 to lysine side chains of target proteins (1,2). Well known targets of NEDD8 belong to the cullin family. Neddylation of cullin activates the related ubiquitin E3 complex by promoting its interaction with ubiquitin-E2 and catalyzing downstream target protein ubiquitination (6-7). Neddylation of the cullins on SCFROC1, SCFβTrCP and SCFSPK2 has been shown to be required for controlling important signaling targets such IκB, NFκB and p27KIP (8-10), thereby regulating cell cycle progression, signaling cascades and developmental programming processes (11).

Specificity/Sensitivity: Ubc12 Antibody detects endogenous levels of total Ubc12 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding K36 of human Ubc12. Antibodies are purified by peptide affinity chromatography.

Background References:

- Huang, D.T. et al. (2007) *Nature* 445, 394-8.
- Huang, D.T. et al. (2005) *Mol Cell* 17, 341-50.
- Liakopoulos, D. et al. (1998) *EMBO J* 17, 2208-14.
- Gong, L. and Yeh, E.T. (1999) *J Biol Chem* 274, 12036-42.
- Wada, H. et al. (2000) *J Biol Chem* 275, 17008-15.
- Sakata, E. et al. (2007) *Nat Struct Mol Biol* 14, 167-8.
- Kawakami, T. et al. (2001) *EMBO J* 20, 4003-12.
- Podust, V.N. et al. (2000) *Proc Natl Acad Sci USA* 97, 4579-84.
- Wu, K. et al. (2002) *J Biol Chem* 277, 516-27.
- Amir, R.E. et al. (2002) *J Biol Chem* 277, 23253-9.
- Herrmann, J. et al. (2007) *Circ Res* 100, 1276-91.



Western blot analysis of extracts from various cell lines using Ubc12 Antibody.

Entrez-Gene ID #9040
Swiss-Prot Acc. #P61081

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.
Please visit 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-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.