

**#4913** Store at -20°C

# Ubc12 Antibody


**Cell Signaling**  
TECHNOLOGY®

**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:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	21	Rabbit	#P61081	9040

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Ubc12 Antibody detects endogenous levels of total Ubc12 protein.	
<b>Source / Purification</b>	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.	
<b>Background</b>	Similar to ubiquitin, NEDD8 is covalently linked to target proteins through an enzymatic cascade composed of NEDD8-specific E1 (activating)- and E2 (conjugating)-enzymes (1,2). The E2 ligase 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 are cullin-based RING E3 ligases. Neddylation of cullin isoforms activates the related ubiquitin E3 complex by promoting its interaction with a cognate ubiquitin-E2 ligase (6-7). Neddylation of Cul-1 complexes containing βTrCP and SKP2 has been shown to be required for controlling the stability of important signaling targets such as IκB, NF-κB, and p27 Kip (8-10), thereby regulating cell cycle progression, signaling cascades, and developmental programming processes (11).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Huang, D.T. et al. (2007) <i>Nature</i> 445, 394-8.</li> <li>Huang, D.T. et al. (2005) <i>Mol Cell</i> 17, 341-50.</li> <li>Liakopoulos, D. et al. (1998) <i>EMBO J</i> 17, 2208-14.</li> <li>Gong, L. and Yeh, E.T. (1999) <i>J Biol Chem</i> 274, 12036-42.</li> <li>Wada, H. et al. (2000) <i>J Biol Chem</i> 275, 17008-15.</li> <li>Sakata, E. et al. (2007) <i>Nat Struct Mol Biol</i> 14, 167-8.</li> <li>Kawakami, T. et al. (2001) <i>EMBO J</i> 20, 4003-12.</li> <li>Podust, V.N. et al. (2000) <i>Proc Natl Acad Sci USA</i> 97, 4579-84.</li> <li>Wu, K. et al. (2002) <i>J Biol Chem</i> 277, 516-27.</li> <li>Amir, R.E. et al. (2002) <i>J Biol Chem</i> 277, 23253-9.</li> <li>Herrmann, J. et al. (2007) <i>Circ Res</i> 100, 1276-91.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	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.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
<b>Trademarks and Patents</b>	Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc. All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.
<b>Limited Uses</b>	Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in

writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.