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#4913

## Ubc12 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> W	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 21	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P61081	<b>Entrez-Gene Id:</b> 9040
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### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### 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.

### 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

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).

### Background References

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- Wada, H. et al. (2000) *J Biol Chem* 275, 17008-15.
- Sakata, E. et al. (2007) *Nat Struct Mol Biol* 14, 167-8.
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- Herrmann, J. et al. (2007) *Circ Res* 100, 1276-91.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**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.

### Applications Key

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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