

**Cullin 4A/4B Rabbit mAb**  
Catalog # AP75306**Specification****Cullin 4A/4B Rabbit mAb - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q13620</a>
Reactivity	Human, Rat, Hamster
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	103982

**Cullin 4A/4B Rabbit mAb - Additional Information**

Gene ID 8450

**Other Names**  
CUL4B**Dilution**  
WB~~1/500-1/1000  
IHC~~1/50-1/100**Format**  
Liquid**Cullin 4A/4B Rabbit mAb - Protein Information****Name** CUL4B {ECO:0000303|PubMed:14578910, ECO:0000312|HGNC:HGNC:2555}**Function**

Core component of multiple cullin-RING-based E3 ubiquitin- protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed: [14578910](http://www.uniprot.org/citations/14578910), PubMed: [16322693](http://www.uniprot.org/citations/16322693), PubMed: [16678110](http://www.uniprot.org/citations/16678110), PubMed: [18593899](http://www.uniprot.org/citations/18593899), PubMed: [22118460](http://www.uniprot.org/citations/22118460), PubMed: [29779948](http://www.uniprot.org/citations/29779948), PubMed: [30166453](http://www.uniprot.org/citations/30166453), PubMed: [33854232](http://www.uniprot.org/citations/33854232), PubMed: [33854239](http://www.uniprot.org/citations/33854239)).

The functional specificity of the E3 ubiquitin-protein ligase complex depends on the variable substrate recognition subunit (PubMed: [14578910](http://www.uniprot.org/citations/14578910), PubMed: [16678110](http://www.uniprot.org/citations/16678110), PubMed: [18593899](http://www.uniprot.org/citations/18593899), PubMed: [22118460](http://www.uniprot.org/citations/22118460), PubMed: [29779948](http://www.uniprot.org/citations/29779948)).

target="\_blank">29779948</a>). CUL4B may act within the complex as a scaffold protein, contributing to catalysis through positioning of the substrate and the ubiquitin- conjugating enzyme (PubMed:<a href="http://www.uniprot.org/citations/14578910" target="\_blank">14578910</a>, PubMed:<a href="http://www.uniprot.org/citations/16678110" target="\_blank">16678110</a>, PubMed:<a href="http://www.uniprot.org/citations/18593899" target="\_blank">18593899</a>, PubMed:<a href="http://www.uniprot.org/citations/22118460" target="\_blank">22118460</a>). Plays a role as part of the E3 ubiquitin-protein ligase complex in polyubiquitination of CDT1, histone H2A, histone H3 and histone H4 in response to radiation-induced DNA damage (PubMed:<a href="http://www.uniprot.org/citations/14578910" target="\_blank">14578910</a>, PubMed:<a href="http://www.uniprot.org/citations/16678110" target="\_blank">16678110</a>, PubMed:<a href="http://www.uniprot.org/citations/18593899" target="\_blank">18593899</a>). Targeted to UV damaged chromatin by DDB2 and may be important for DNA repair and DNA replication (PubMed:<a href="http://www.uniprot.org/citations/16678110" target="\_blank">16678110</a>). A number of DCX complexes (containing either TRPC4AP or DCAF12 as substrate-recognition component) are part of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:<a href="http://www.uniprot.org/citations/29779948" target="\_blank">29779948</a>). The DCX(AMBRA1) complex is a master regulator of the transition from G1 to S cell phase by mediating ubiquitination of phosphorylated cyclin-D (CCND1, CCND2 and CCND3) (PubMed:<a href="http://www.uniprot.org/citations/33854232" target="\_blank">33854232</a>, PubMed:<a href="http://www.uniprot.org/citations/33854239" target="\_blank">33854239</a>). The DCX(AMBRA1) complex also acts as a regulator of Cul5-RING (CRL5) E3 ubiquitin-protein ligase complexes by mediating ubiquitination and degradation of Elongin-C (ELOC) component of CRL5 complexes (PubMed:<a href="http://www.uniprot.org/citations/30166453" target="\_blank">30166453</a>). Required for ubiquitination of cyclin E (CCNE1 or CCNE2), and consequently, normal G1 cell cycle progression (PubMed:<a href="http://www.uniprot.org/citations/16322693" target="\_blank">16322693</a>, PubMed:<a href="http://www.uniprot.org/citations/19801544" target="\_blank">19801544</a>). Regulates the mammalian target-of- rapamycin (mTOR) pathway involved in control of cell growth, size and metabolism (PubMed:<a href="http://www.uniprot.org/citations/18235224" target="\_blank">18235224</a>). Specific CUL4B regulation of the mTORC1- mediated pathway is dependent upon 26S proteasome function and requires interaction between CUL4B and MLST8 (PubMed:<a href="http://www.uniprot.org/citations/18235224" target="\_blank">18235224</a>). With CUL4A, contributes to ribosome biogenesis (PubMed:<a href="http://www.uniprot.org/citations/26711351" target="\_blank">26711351</a>).

### Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:A2A432}. Nucleus. Note=More concentrated in nuclei than in cytoplasm in germinal vesicle (GV) stage oocytes, zygotes and the 2-cell stage, but distributed in the cytoplasm at the MII-stage oocytes. {ECO:0000250|UniProtKB:A2A432}

### Cullin 4A/4B Rabbit mAb - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Cullin 4A/4B Rabbit mAb - Images

