

# KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1425

## Product Information

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| <b>Application</b>       | WB, FC, ICC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Primary Accession</b> | <a href="#">P49427</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Reactivity</b>        | Rat, Human, Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Clonality</b>         | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Isotype</b>           | Rabbit IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Clone Names</b>       | 25GB3490                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Calculated MW</b>     | 26737                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gene Name</b>         | CDC34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Aliases</b>           | CDC34; Cell Division Cycle 34, Ubiquitin Conjugating Enzyme; UBE2R1; E2-CDC34; UBC3; (E3-Independent) E2 Ubiquitin-Conjugating Enzyme R1; Ubiquitin-Conjugating Enzyme E2-CDC34; Ubiquitin-Conjugating Enzyme E2 R1; E2 Ubiquitin-Conjugating Enzyme R1; Ubiquitin-Protein Ligase R1; UBCH3; Ubiquitin-Conjugating Enzyme E2-32 KDa Complementing; Ubiquitin-Conjugating Enzyme E2-32 KDa Complementing; Ubiquitin Conjugating Enzyme E2 R1; Cell Division Cycle 34 Homolog; Ubiquitin Carrier Protein; EC 2.3.2.23; EC 2.3.2.24; EC 6.3.2.19 |
| <b>Immunogen</b>         | Recombinant protein of human Cdc34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## Additional Information

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| <b>Gene ID</b>     | 997                                                                                                                                                                                                                                                                                             |
| <b>Other Names</b> | Ubiquitin-conjugating enzyme E2 R1, 2.3.2.23, (E3-independent) E2 ubiquitin-conjugating enzyme R1, 2.3.2.24, E2 ubiquitin-conjugating enzyme R1, Ubiquitin-conjugating enzyme E2-32 kDa complementing, Ubiquitin-conjugating enzyme E2-CDC34, Ubiquitin-protein ligase R1, CDC34, UBCH3, UBE2R1 |

## Protein Information

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| <b>Name</b>     | CDC34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b> | UBCH3, UBE2R1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Function</b> | E2 ubiquitin-conjugating enzyme that accepts ubiquitin from an E1 ubiquitin-activating protein, and catalyzes its covalent attachment to other proteins by an E3 ubiquitin-protein ligase complex (PubMed: <a href="#">10329681</a> , PubMed: <a href="#">17588522</a> , PubMed: <a href="#">20061386</a> , PubMed: <a href="#">38326650</a> ). In vitro catalyzes 'Lys-48'-linked polyubiquitination (PubMed: <a href="#">22496338</a> ). Cooperates with the E2 UBCH5C and the SCF(FBXW11) E3 ligase complex for the polyubiquitination of NFKBIA leading to its subsequent proteasomal degradation (PubMed: <a href="#">10329681</a> , PubMed: <a href="#">10918611</a> , PubMed: <a href="#">17698585</a> ). Performs |

ubiquitin chain elongation building ubiquitin chains from the UBE2D3-primed NFKBIA-linked ubiquitin. UBE2D3 acts as an initiator E2, priming the phosphorylated NFKBIA target at positions 'Lys-21' and/or 'Lys-22' with a monoubiquitin. Cooperates with the SCF(SKP2) E3 ligase complex to regulate cell proliferation through ubiquitination and degradation of MYBL2 and KIP1 (PubMed:[10871850](#), PubMed:[15652359](#), PubMed:[19112177](#)). Involved in ubiquitin conjugation and degradation of CREM isoform ICERIIgamma and ATF15 resulting in abrogation of ICERIIgamma- and ATF5-mediated repression of cAMP-induced transcription during both meiotic and mitotic cell cycles. Involved in the regulation of the cell cycle G2/M phase through its targeting of the WEE1 kinase for ubiquitination and degradation (PubMed:[19126550](#)). Also involved in the degradation of beta-catenin (PubMed:[12037680](#)). Is target of human herpes virus 1 protein ICP0, leading to ICP0-dependent dynamic interaction with proteasomes (PubMed:[11805320](#), PubMed:[12060736](#)).

**Cellular Location**

Cytoplasm. Nucleus. Note=The phosphorylation of the C-terminal tail plays an important role in mediating nuclear localization. Colocalizes with beta-tubulin on mitotic spindles in anaphase

**Tissue Location**

Expressed in testes during spermatogenesis to regulate repression of cAMP-induced transcription

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