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KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1425

Product Information

Application	WB, FC, ICC
Primary Accession	P49427
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB3490
Calculated MW	26737
Gene Name	CDC34
Aliases	CDC34; Cell Division Cycle 34, Ubiqiutin 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
Immunogen	Recombinant protein of human Cdc34

Additional Information

Gene ID	997
Other Names	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

Name	CDC34
Synonyms	UBCH3, UBE2R1
Function	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:10329681, PubMed:17588522, PubMed:20061386, PubMed:38326650). In vitro catalyzes 'Lys-48'-linked polyubiquitination (PubMed:22496338). Cooperates with the E2 UBCH5C and the SCF(FBXW11) E3 ligase complex for the polyubiquitination of NFKBIA leading to its subsequent proteasomal degradation (PubMed:10329681, PubMed:10918611, PubMed:17698585). 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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