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KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1425

Specification

KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P49427
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 27 kDa; observed, 32 kDa KDa**
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**

KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody - 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

KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody - 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

KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-CDC34 Rabbit Monoclonal Antibody - Images

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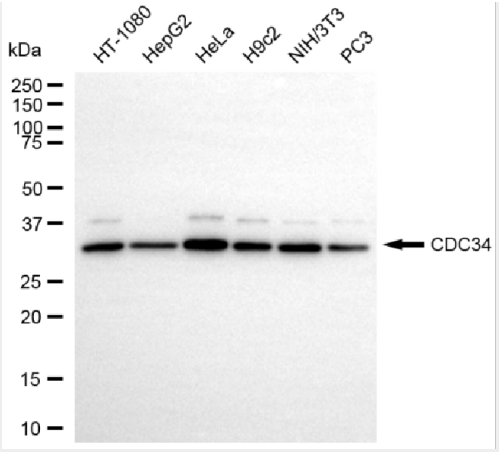
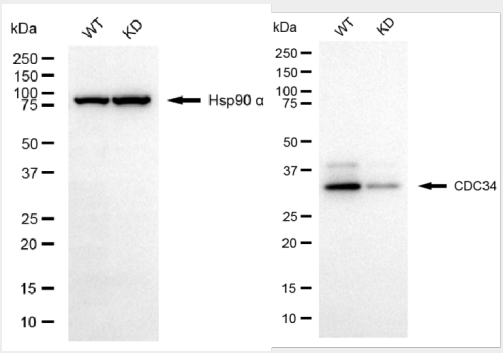
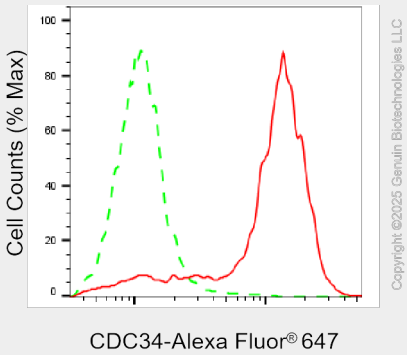


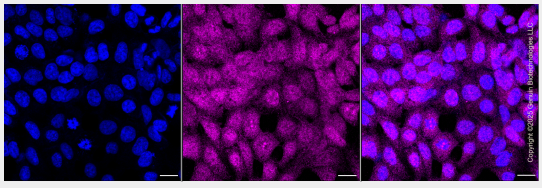
Western blotting analysis using anti-CDC34 antibody (Cat#AGI1425). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-CDC34 antibody (Cat#AGI1425, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-CDC34 antibody (Cat#AGI1425). CDC34 expression in wild-type (WT) and CDC34 knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-CDC34 antibody (Cat#AGI1425, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of CDC34 expression in HAP-1 cells using anti-CDC34 antibody (Cat#AGI1425, 1:2,000). Green, isotype control; red, CDC34.



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Immunocytochemical staining of HAP1 cells with anti-CDC34 antibody (Cat#AGI1425, 1:1,000). Nuclei were stained blue with DAPI; CDC34 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.