

Uniprot ID: [P49427](#)

Protein name: UB2R1_HUMAN

CDC34-1

Full name: Ubiquitin-conjugating enzyme E2 R1

Protein existence: evidence at protein level

Function: Accepts ubiquitin from the E1 complex and catalyzes its covalent attachment to other proteins. In vitro catalyzes 'Lys-48'-linked polyubiquitination. Cooperates with the E2 UBCH5C and the SCF(FBXW11) E3 ligase complex for the polyubiquitination of NFKBIA leading to its subsequent proteasomal degradation. 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. 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. Also involved in the degradation of beta-catenin. Is target of human herpes virus 1 protein ICP0, leading to ICP0-dependent dynamic interaction with proteasomes.

Subcellular 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 specificity: Expressed in testes during spermatogenesis to regulate repression of cAMP-induced transcription.

Two antibodies: CDC34-1 and CDC34-2 were tested. Both were approved for IHC, CDC34-2 was selected for full protein profiling.

CDC34-1 (CAB047310)

OK



Immunohistochemistry

IHC protocol: HIER pH 6, Dilution 1:300

IHC test staining: General cytoplasmic staining in all tissues inclusively vessels.

Western blot

WB Size markers (kDa): 250, 130, 95, 72, 55, 36, 28, 17, 11

WB Lanes: Marker(1), RT-4(2), U251 MG(3), Plasma(4), Liver(5), Tonsil(6)

WB Target weight (kDa): 27

WB Validation: Not supportive (Weak band of predicted size but with additional bands of higher intensity also present)

