SPECIFICATION SHEET
Rev 082734A

Cell Division Cycle 34 Homolog

Human, Recombinant (rHuCDC34 / rHuUbcH3)

Expressed in *E. coli*
Cat. No. CRP08134
Lot. No. (See product label)

PDB rendering based on 2ob4.
Available structures: 2ob4

PRODUCT INFORMATION

Description: Cdc34 is important in the control of cell cycle and DNA replication. Cdc34 in association with different E3 complexes, including SCF, has been shown to target many different substrates for ubiquitination and degradation during cell division, signal transduction, and development. Cdc34 substrates that have been characterized include IκB, B-Myb, Wee1, MyoD, ICERIIγ, ATF5, p27Xic1, and p27Kip1. Additionally, substrates such as β-catenin, p21Cip1, E2F, cyclin E, and cyclin D are putative substrates of Cdc34 by virtue of their SCF requirement for proteolysis. Cdc34 has been demonstrated to self-associate through a domain in the C-terminus, and is phosphorylated and ubiquitinylated *in vivo*. This protein is useful for *in vitro* ubiquitinylation reactions.

Amino-Acid Sequence: 248*aa.* non-glycosylated

M. W. : Approximately 28 kDa

Recombinant: Expressed in *E. coli*

Purity: >95% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2μm filtered concentrated (1mg/ml) solution in 1×PBS, 1mM DTT,pH 7.4.

Endotoxin: 1EU/Less thang of rHuCDC34 as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

FOR RESEARCH USE ONLY

GENE INFORMATION

Gene Name: CDC34
Synonmys: UBC3; UBE2R1; E2-CDC34; UBE2R1;cell division cycle 34 homolog (S. cerevisiae); cell division cycle 34; UB2R1_HUMAN; Ubiquitin-conjugating enzyme E2 R1; EC 6.3.2.19; Ubiquitin-protein ligase R1; Ubiquitin-conjugating enzyme E2-32 kDa complementing; E2-CDC34; CDC34; UBE2R1;UBIQUITIN-CONJUGATING ENZYME E2-CDC34; COMPLEMENTING; ubiquitin carrier protein; ubiquitin-conjugating enzyme Cdc34; ubiquitin-protein ligase.
mRNA Refseq: NM_004359
Protein Refseq : NP_004350
MIM: 116948
UniProt ID: P49427
Gene ID: 997
Chromosome Location: 19p13.3
Pathway: Ubiquitin mediated proteolysis
Function: ligase activity;protein binding; ubiquitin-protein ligase activity.

REFERENCES

1.Gonen H, Bercovich B, Orian A, et al. (1999). Identification of the ubiquitin carrier proteins, E2s, involved in signal-induced conjugation and subsequent degradation of IkappaBalpha. J. Biol. Chem. 274 (21): 14823–30.

2.Pati D, Meistrich ML, Plon SE (1999). Human Cdc34 and Rad6B ubiquitin-conjugating enzymes target repressors of cyclic AMP-induced transcription for proteolysis. Mol. Cell. Biol. 19 (7): 5001–13.

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