abcam

Product datasheet

Recombinant Human Cullin 1/CUL-1 protein ab131835

1 Image

Description

Product name Recombinant Human Cullin 1/CUL-1 protein

Expression system Wheat germ

Accession Q13616

Protein length Full length protein

Animal free No

Nature Recombinant

Species Human

Sequence MSSTRSQNPHGLKQIGLDQIWDDLRAGIQQVYTRQSMAKS

RYMELYTHVY

NYCTSVHQSNQARGAGVPPSKSKKGQTPGGAQFVGLEL

YKRLKEFLKNYL

TNLLKDGEDLMDESVLKFYTQQWEDYRFSSKVLNGICAYL

NRHWVRRECD

EGRKGIYEIYSLALVTWRDCLFRPLNKQVTNAVLKLIEKER

NGETINTRL

ISGVVQSYVELGLNEDDAFAKGPTLTVYKESFESQFLADT

ERFYTRESTE

FLQQNPVTEYMKKAEARLLEEQRRVQVYLHESTQDELAR

KCEQVLIEKHL

EIFHTEFQNLLDADKNEDLGRMYNLVSRIQDGLGELKKLLE

THIHNQGLA

AIEKCGEAALNDPKMYVQTVLDVHKKYNALVMSAFNNDA

GFVAALDKACG

RFINNNAVTKMAQSSSKSPELLARYCDSLLKKSSKNPEEA

ELEDTLNQVM

VVFKYIEDKDVFQKFYAKMLAKRLVHQNSASDDAEASMIS

KLKQACGFEY

TSKLQRMFQDIGVSKDLNEQFKKHLTNSEPLDLDFSIQVL

SSGSWPFQQS

CTFALPSELERSYQRFTAFYASRHSGRKLTWLYQLSKGEL

VTNCFKNRYT

LQASTFQMAILLQYNTEDAYTVQQLTDSTQIKMDILAQVLQI

LLKSKLLV

LEDENANVDEVELKPDTLIKLYLGYKNKKLRVNINVPMKTE

QKQEQETTH

1

KNIEEDRKLLIQAAIVRIMKMRKVLKHQQLLGEVLTQLSSRF KPRVPVIK KCIDILIEKEYLERVDGEKDTYSYLA

Predicted molecular weight 116 kDa including tags

Amino acids 1 to 776

Tags GST tag N-Terminus

Specifications

Our Abpromise quarantee covers the use of ab131835 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications Western blot

SDS-PAGE

ELISA

Form Liquid

Additional notes This product was previously labelled as Cullin 1.

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles.

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Constituents: 0.31% Glutathione, 0.79% Tris HCI

General Info

Function

Core component of multiple cullin-RING-based SCF (SKP1-CUL1-F-box protein) E3 ubiquitinprotein ligase complexes, which mediate the ubiquitination of proteins involved in cell cycle progression, signal transduction and transcription. In the SCF complex, serves as a rigid scaffold that organizes the SKP1-F-box protein and RBX1 subunits. May contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme. The E3 ubiquitin-protein ligase activity of the complex is dependent on the neddylation of the cullin subunit and is inhibited by the association of the deneddylated cullin subunit with TIP120A/CAND1. The functional specificity of the SCF complex depends on the F-box protein as substrate recognition component. SCF(BTRC) and SCF(FBXW11) direct ubiquitination of CTNNB1 and participate in Wnt signaling. SCF(FBXW11) directs ubiquitination of phosphorylated NFKBIA. SCF(BTRC) directs ubiquitination of NFKBIB, NFKBIE, ATF4, SMAD3, SMAD4, CDC25A, FBXO5 and probably NFKB2. SCF(SKP2) directs ubiquination of phosphorylated CDKN1B/p27kip and is involved in regulation of G1/S transition. SCF(SKP2) directs ubiquination of ORC1, CDT1, RBL2, ELF4, CDKN1A, RAG2, FOXO1A, and probably MYC and TAL1. SCF(FBXW7) directs ubiquitination of cyclin E, NOTCH1 released notch intracellular domain (NICD), and probably PSEN1. SCF(FBXW2) directs ubiquitination of GCM1. SCF(FBXO32) directs ubiquitination of MYOD1. SCF(FBXO7) directs ubiquitination of BIRC2 and DLGAP5. SCF(FBXO33) directs ubiquitination of YBX1. SCF(FBXO11) does not seem to direct ubiquitination of TP53. SCF(BTRC) mediates the ubiquitination of NFKBIA at 'Lys-21' and 'Lys-22'; the degradation frees the associated NFKB1-RELA dimer to translocate into the nucleus and to activate transcription. SCF(Cyclin F) directs ubiquitination of CP110.

Tissue specificity Expressed in lung fibroblasts.

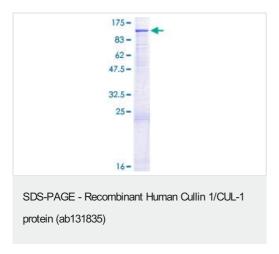
Pathway Protein modification; protein ubiquitination.

Sequence similarities Belongs to the cullin family.

Post-translational Neddylated; which enhances the ubiquitination activity of SCF. Deneddylated via its interaction modifications with the COP9 signalosome (CSN) complex. Deneddylated by Epstein-Barr virus BPLF1 leading

to a S-phase-like environment that is required for efficient replication of the viral genome.

Images



12.5% SDS-PAGE analysis of ab131835 stained with Coomassie Blue.

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