Datasheet for ABIN7553577

Cullin 4B Protein (CUL4B) (AA 1-913) (His tag)

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Overview

Quantity:	1 mg
Target:	Cullin 4B (CUL4B)
Protein Characteristics:	AA 1-913
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Cullin 4B protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant CUL4B Protein expressed in mammalian cells.
Sequence:	MMSQSSGSGD GNDDEATTSK DGGFSSPSPS AAAAAQEVRS ATDGNTSTTP PTSAKKRKLN SSSSSSSNSS NEREDFDSTS SSSSTPPLQP RDSASPSTSS FCLGVSVAAS SHVPIQKKLR FEDTLEFVGF DAKMAEESSS SSSSSSPTAA TSQQQQLKNK SILISSVASV HHANGLAKSS TTVSSFANSK PGSAKKLVIK NFKDKPKLPE NYTDETWQKL KEAVEAIQNS TSIKYNLEEL YQAVENLCSY KISANLYKQL RQICEDHIKA QIHQFREDSL DSVLFLKKID RCWQNHCRQM IMIRSIFLFL DRTYVLQNSM LPSIWDMGLE LFRAHIISDQ KVQNKTIDGI LLLIERERNG EAIDRSLLRS LLSMLSDLQI YQDSFEQRFL EETNRLYAAE GQKLMQEREV PEYLHHVNKR LEEEADRLIT YLDQTTQKSL IATVEKQLLG EHLTAILQKG LNNLLDENRI QDLSLLYQLF SRVRGGVQVL LQQWIEYIKA FGSTIVINPE KDKTMVQELL DFKDKVDHII DICFLKNEKF INAMKEAFET FINKRPNKPA ELIAKYVDSK LRAGNKEATD EELEKMLDKI MIIFRFIYGK DVFEAFYKKD LAKRLLVGKS ASVDAEKSML SKLKHECGAA FTSKLEGMFK DMELSKDIMI QFKQYMQNQN VPGNIELTVN ILTMGYWPTY VPMEVHLPPE MVKLQEIFKT FYLGKHSGRK

Product Details

	LQWQSTLGHC VLKAEFKEGK KELQVSLFQT LVLLMFNEGE EFSLEEIKQA TGIEDGELRR TLQSLACGKA RVLAKNPKGK DIEDGDKFIC NDDFKHKLFR IKINQIQMKE TVEEQASTTE RVFQDRQYQI DAAIVRIMKM RKTLSHNLLV SEVYNQLKFP VKPADLKKRI ESLIDRDYME RDKENPNQYN YIA **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	Cullin 4B (CUL4B)
Alternative Name:	CUL4B (CUL4B Products)
Background:	Cullin-4B (CUL-4B),FUNCTION: Core component of multiple cullin-RING-based E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:14578910, PubMed:16322693, PubMed:16678110, PubMed:18593899, PubMed:29779948, PubMed:30166453, PubMed:33854232, PubMed:33854239, PubMed:22118460). The functional specificity of the E3 ubiquitin-protein

Target Details

	ligase complex depends on the variable substrate recognition subunit (PubMed:14578910, PubMed:16678110, PubMed:18593899, PubMed:29779948, PubMed:22118460). CUL4B may act within the complex as a scaffold protein, contributing to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme (PubMed:14578910, PubMed:16678110, PubMed:18593899, PubMed:22118460). Plays a role as part of the E3 ubiquitin-protein ligase complex in polyubiquitination of CDT1, histone H2A, histone H3 and histone H4 in response to radiation-induced DNA damage (PubMed:14578910, PubMed:16678110, PubMed:18593899). Targeted to UV damaged chromatin by DDB2 and may be important for DNA repair and DNA replication (PubMed:16678110). A number of DCX complexes (containing either TRPC4AP or DCAF12 as substrate-recognition component) are part of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:29779948). The DCX(AMBRA1) complex is a master regulator of the transition from G1 to S cell phase by mediating ubiquitination of phosphorylated cyclin-D (CCND1, CCND2 and CCND3) (PubMed:33854232, PubMed:33854239). The DCX(AMBRA1) complex also acts as a regulator of Cul5-RING (CRL5) E3 ubiquitin-protein ligase complexes by mediating ubiquitination and degradation of Elongin-C (ELOC) component of CRL5 complexes (PubMed:30166453). Required for ubiquitination of cyclin E (CCNE1 or CCNE2), and consequently, normal G1 cell cycle progression (PubMed:16322693, PubMed:19801544). Regulates the mammalian target-of-rapamycin (mTOR) pathway involved in control of cell growth, size and metabolism (PubMed:18235224). Specific CUL4B regulation of the mTORC1-mediated pathway is dependent upon 26S proteasome function and requires interaction between CUL4B and MLST8 (PubMed:18235224). With CUL4A, contributes to ribosome biogenesis (PubMed:26711351). {ECO:0000269|PubMed:14578910, ECO:0000269|PubMed:16322693, ECO:0000269|PubMed:16678110, ECO:0000269|PubMed:18235224, ECO:0000269|PubMed:18593899, ECO:0000269|PubMed:19801544, ECO:0000269|PubMed:22118460, ECO:0000269|PubMed:26711351, ECO:0000269|PubMed:29779948, ECO:0000269|PubMed:30166453, ECO:0000269|PubMed:33854232, ECO:0000269|PubMed:33854239}.
Molecular Weight:	104.0 kDa
UniProt:	Q13620

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

