

Product datasheet for PH324650

Cullin 1 (CUL1) (NM_003592) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	CUL1 MS Standard C13 and N15-labeled recombinant protein (NP_003583)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC224650
Predicted MW:	89.5 kDa
Protein Sequence:	>RC224650 representing NM_003592 Red=Cloning site Green=Tags(s)

MSSTRSQNP HGLKQIGLDQIWDDL RAGIQQVYTRQSMASRYMELYTHVYNYCTSVHQSNQARGAGVPPS
KSKKGQTPGGAQFVGLLEYKRLKEFLKNYLTNLLKDGEDLMDESVLKFYQQWEDYRFSSKVLNGICAYL
NRHWVRRECDEGRKGIYEIYSLALVTRDCLFRPLNKQVTNAVLKLEKERNGETINTRLISGVVQSYVE
LGLNEDDAFAKGPTLTVYKESFESQFLADTERFYTRETEFLQQNPVTEYMKKAEARLLEEQRVQVYLH
ESTQDELARKCEQVLEKHLIEFHTEFQNLDDADKNEDLGRMYNLVSRIQDGLGELKKLLETHIHQGLA
AIEKCGEAAALNDPKMYVQTVLDVHKYNALVMSAFNNDAGFVAALDKACGRFINNNAVTKMAQSSSKSPE
LLARYCDSLLKKSSKNPEEALEDTLNQVMVVKYIEDKDVFKFYAKMLAKRLVHONSASDDAEASMIS
KLLKQACGFYTSKLQRMFQDIGVSKDLNEQFKKHLTNSEPLDLDFSIQVLSGGSWPFQSQCTFALPSELE
RSYQRFATFYASRHSGRKLTLWYQLSKGELVTNCFKNRYTLQASTFQMAILLQYNTEDAYTVQQLTDSTQ
IKMDILAQVLQILLKSKLLVLEDENANVDEVELKPDTLIKLYLGYKNKLRVNIINVPMKTEQKQEQETTH
KNIEEDRLLIQAIVRIMKMRKVLKHQQLLGEVLTQLSSRFKPRVPVIKKCIDILIEKEYLERVDGEKD
TYSYLA

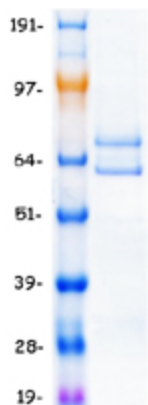
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_003583



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RefSeq Size:	3226
RefSeq ORF:	2328
Locus ID:	8454
UniProt ID:	Q13616 , A0A090N7U0 , B3KTW0
Cytogenetics:	7q36.1
Summary:	<p>Core component of multiple cullin-RING-based SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complexes, which mediate the ubiquitination of proteins involved in cell cycle progression, signal transduction and transcription. SCF complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins (PubMed:27565346). 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 exchange of the substrate recognition component is mediated by 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(BTRC) and/or SCF(FBXW11) direct ubiquitination of CEP68 (PubMed:25704143, PubMed:25503564). SCF(SKP2) directs ubiquitination of phosphorylated CDKN1B/p27kip and is involved in regulation of G1/S transition. SCF(SKP2) directs ubiquitination of ORC1, CDT1, RBL2, ELF4, CDKN1A, RAG2, FOXO1A, and probably MYC and TAL1. SCF(FBXW7) directs ubiquitination of CCNE1, 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(FBXO1) directs ubiquitination of BCL6 and DTL but 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(CCNF) directs ubiquitination of CCP110. SCF(FBXL3) and SCF(FBXL21) direct ubiquitination of CRY1 and CRY2. SCF(FBXO9) directs ubiquitination of TTI1 and TELO2. SCF(FBXO10) directs ubiquitination of BCL2.[UniProtKB/Swiss-Prot Function]</p>
Protein Families:	Druggable Genome
Protein Pathways:	Cell cycle, Oocyte meiosis, TGF-beta signaling pathway, Ubiquitin mediated proteolysis, Wnt signaling pathway

Product images:

Coomassie blue staining of purified CUL1 protein (Cat# [TP324650]). The protein was produced from HEK293T cells transfected with CUL1 cDNA clone (Cat# [RC224650]) using MegaTran 2.0 (Cat# [TT210002]).