

## Product datasheet for **AR09691PU-N**

### Cullin 1 (1-410, His-tag) Human Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Cullin 1 (1-410, His-tag) human recombinant protein, 50 µg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH</u> MSSTRSQNPH GLKQIGLDQI WDDLRAIQQ VYTRQSMAS RYMELYTHVY NYCTSVHQS N QARGAGVPPS KSKKGQTPGG AQFVGLLEYK RLKEFLKNYL TNLKDGEDL MDESVLKFYT QQWEDYRFSS KVLNGICAYL NRHWVRRECD EGRKGIYEIY SLALVTWRDC LFRPLNKQVT NAVLKIEKE RNGETINTRL ISGVVQSYVE LGLNEDDAFA KGPTLTVYKE SFESQFLADT ERFYTRESTE FLQQNPVTEY MKKAEARLLE EQRRVQVYLH ESTQDELARK CEQVLEKHL EIFHTEFQNL LDADKNEDLG RMYNLSRIQ DGLGELKLL ETHIHNQGLA AIEKCGEAL NDPKMYVQTV LDVHKYNAL VMSAFNNDAG FVAALDKACG RFINNNAVTK
Tag:	His-tag
Predicted MW:	49.4 kDa
Concentration:	lot specific
Purity:	>95%
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol, 100 mM NaCl
Preparation:	Liquid purified protein
Protein Description:	Recombinant human CUL1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
RefSeq:	<u>NP_003583</u>
Locus ID:	8454
UniProt ID:	<u>Q13616</u> , <u>A0A090N7U0</u> , <u>B3KTW0</u>



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**Cytogenetics:** 7q36.1

**Summary:** 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]

**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Oocyte meiosis, TGF-beta signaling pathway, Ubiquitin mediated proteolysis, Wnt signaling pathway

## Product images:

