

ARG43681 anti-Cullin 1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Cullin 1
Tested Reactivity	Hu, Ms, Rat
Tested Application	FACS, ICC/IF, IHC-P, IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Cullin 1
Species	Human
Immunogen	Synthetic peptide corresponding to Human Cullin 1.
Conjugation	Un-conjugated
Alternate Names	Cullin-1; CUL-1

Application Instructions

Application table	Application	Dilution
	FACS	1:50 - 1:100
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:100
	IP	1:10 - 1:25
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	90 kDa	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	Batch dependent
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CUL1
Gene Full Name	cullin 1
Background	Predicted to enable ubiquitin protein ligase binding activity and ubiquitin-protein transferase activity. Involved in SCF-dependent proteasomal ubiquitin-dependent protein catabolic process and protein ubiquitination. Located in plasma membrane. Part of Parkin-FBXW7-Cul1 ubiquitin ligase complex and SCF ubiquitin ligase complex. [provided by Alliance of Genome Resources, Apr 2022]
Function	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. 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(SK2) directs ubiquitination of phosphorylated CDKN1B/p27kip and is involved in regulation of G1/S transition. SCF(SK2) directs ubiquitination 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(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) direct ubiquitination of TTI1 and TELO2. SCF(FBXO10) directs ubiquitination of BCL2. [UniProt]
Calculated Mw	90 kDa
PTM	Neddylated; which enhances the ubiquitination activity of SCF and prevents binding of the inhibitor CAND1. Deneddylated via its interaction with the COP9 signalosome (CSN) complex (PubMed:10597293, PubMed:10713156, PubMed:15537541, PubMed:18805092). (Microbial infection) Deneddylated by Epstein-Barr virus BPLF1 leading to a S-phase-like environment that is required for efficient replication of the viral genome (PubMed:20190741). [UniProt]
Cellular Localization	cullin-RING ubiquitin ligase complex: cytosol, nucleoplasm; Parkin-FBXW7-Cul1 ubiquitin ligase complex: plasma membrane; SCF ubiquitin ligase complex