10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Cullin4A Antibody

Rabbit mAb
Catalog # AP91856

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	Q13619
Reactivity	Human
Clonality	Monoclonal
Other Names	Cul4a; Cullin-4A;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	87680

Additional Information

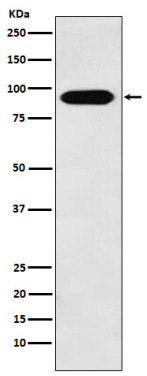
Dilution	WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Cullin4A
Description	Core component of multiple cullin-RING-based E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins. As a scaffold protein may contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	CUL4A {ECO:0000303|PubMed:9721878, ECO:0000312|HGNC:HGNC:2554}
Function	Core component of multiple cullin-RING-based E3 ubiquitin- protein ligase complexes which mediate the ubiquitination of target proteins (PubMed:14578910, PubMed:14739464, PubMed:15448697, PubMed:15548678, PubMed:15811626, PubMed:16678110, PubMed:17041588, PubMed:24209620, PubMed:30166453, PubMed:33854232, PubMed:33854239). As a scaffold protein may contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme (PubMed:14578910, PubMed:14739464, PubMed:15448697, PubMed:15548678, PubMed:15811626, PubMed:16678110, PubMed:17041588, PubMed:24209620). 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 (PubMed:14578910, PubMed:14739464, PubMed:15448697, PubMed:15548678, PubMed:15811626, PubMed:16678110,

PubMed:17041588, PubMed:24209620). The functional specificity of the E3 ubiquitin-protein ligase complex depends on the variable substrate recognition component (PubMed:14578910, PubMed:14739464, PubMed:15448697, PubMed:15548678, PubMed:15811626, PubMed:16678110, PubMed:17041588, PubMed:24209620). DCX(DET1-COP1) directs ubiquitination of JUN (PubMed:14739464). DCX(DDB2) directs ubiquitination of XPC (PubMed:15811626). DCX(DDB2) ubiquitinates histones H3-H4 and is required for efficient histone deposition during replication-coupled (H3.1) and replication-independent (H3.3) nucleosome assembly, probably by facilitating the transfer of H3 from ASF1A/ASF1B to other chaperones involved in histone deposition (PubMed:16678110, PubMed:17041588, PubMed:24209620). DCX(DTL) plays a role in PCNA-dependent polyubiquitination of CDT1 and MDM2-dependent ubiquitination of p53/TP53 in response to radiation-induced DNA damage and during DNA replication (PubMed:14578910, PubMed:15448697, PubMed:15548678). DCX(DTL) directs autoubiquitination of DTL (PubMed:23478445). In association with DDB1 and SKP2 probably is involved in ubiquitination of CDKN1B/p27kip (PubMed:16537899). Is involved in ubiquitination of HOXA9 (PubMed:14609952). The DDB1-CUL4A- DTL E3 ligase complex regulates the circadian clock function by mediating the ubiquitination and degradation of CRY1 (PubMed:26431207). The DCX(ERCC8) complex (also named CSA complex) plays a role in transcription-coupled repair (TCR) (PubMed:12732143, PubMed:32355176, PubMed:38316879). 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). With CUL4B, contributes to ribosome biogenesis (PubMed:26711351).

Images



Western blot analysis of Cullin 4a expression in Hela cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.