Product Name: CUL-3 Rabbit Polyclonal Antibody
Catalog #: APRab09533

Summary

Production Name	CUL-3 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CUL3
Alternative Names	CUL3; KIAA0617; Cullin-3; CUL-3
Gene ID	8452.0
SwissProt ID	Q13618.The antiserum was produced against synthesized peptide derived from human Cullin 3. AA range:1-50

Application

Dilution Ratio	WB 1:500-2000 IHC 1:100 - 1:300. ELISA: 1:5000.
Molecular Weight	90kD

Background

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This gene encodes a member of the cullin protein family. The encoded protein plays a critical role in the polyubiquitination and subsequent degradation of specific protein substrates as the core component and scaffold protein of an E3 ubiquitin ligase complex. Complexes including the encoded protein may also play a role in late endosome maturation. Mutations in this gene are a cause of type 2E pseudohypoaldosteronism. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Mar 2012],function:Core component of multiple cullin-RING-based BCR (BTB-CUL3-RBX1) 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. 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 (By similarity). The functional specificity of the BCR complex depends on the BTB domain-containing protein as the susbstrate recognition component. BCR(SPOP) is involved in ubiquitination of BMI1/PCGF4, H2AFY and DAXX, and probably GLI2 or GLI3. BCR(KLHL9-KLHL13) controls the dynamic behavior of AURKB on mitotic chromosomes and thereby coordinates faithful mitotic progression and completion of cytokinesis. Involved in ubiquitination of cyclin E and of cyclin D1 (in vitro) thus involved in regulation of G1/S transition.,pathway:Protein modification; protein ubiquitination.,PTM:Neddylated. Attachment of NEDD8 is required for the E3 ubiquitin-protein ligase activity of the BCR complex. Deneddylated via its interaction with the COP9 signalosome (CSN) complex.,similarity:Belongs to the cullin family.,subunit:Forms neddylation-dependent homodimers. Component of multiple BCR (BTB-CUL3-RBX1) E3 ubiquitin-protein ligase complexes formed of CUL3, RBX1 and a variable BTB domain-containing protein acting as both, adapter to cullin and substrate recognition subunit. The BCR complex may be active as a heterodimeric complex, in which NEDD8, covalently attached to one CUL3 molecule, binds to the C-terminus of a second CUL3 molecule. Interacts with RBX1, RNF7, CYCE and TIP120A/CAND1. Part of the BCR(SPOP) containing SPOP. Part of the probable BCR(KLHL9-KLHL13) complex with BTB domain proteins KLHL9 and KLHL13. Part of the BCR(KBTBD10) complex containing KBTBD10. Part of the BCR(ENC1) complex containing ENC1. Part of a complex consisting of BMI1/PCGF4, CUL3 and SPOP. Part of a complex consisting of H2AFY, CUL3 and SPOP. Interacts with KLHL9, KLHL13, GAN, ZBTB16, KLHL21, KLHL3, KLHL15, KLHL20, C16orf44, GMCL1L, BTBD1. Part of a complex that contains CUL3, RBX1 and GAN.,tissue specificity:Widely expressed.,

Research Area

Ubiquitin mediated proteolysis;

Image Data

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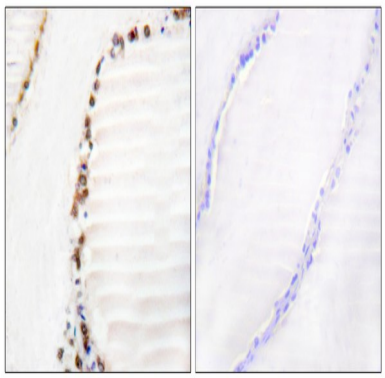
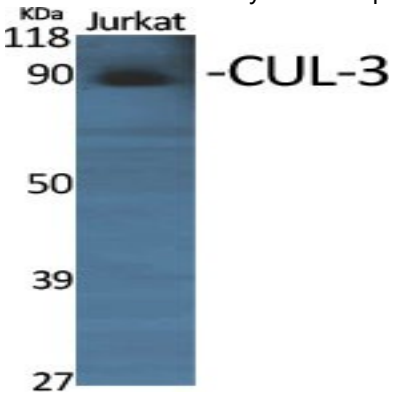


Immunohistochemistry analysis of paraffin-embedded human thyroid gland tissue, using Cullin 3 Antibody. The picture on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using CUL-3 Polyclonal Antibody diluted at 1： 1000

Note

For research use only.