Anti-Cul3 (N-terminal specific) (RABBIT) Antibody - 100-401-A03

Code: 100-401-A03 **Size:** 100 µL

Product Description: Anti-Cul3 (N-terminal specific) (RABBIT) Antibody - 100-401-A03

Concentration: 85 mg/mL by Refractometry

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	CUL3
Species Reactivity	human, mouse
Buffer	None
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store anti-Cul3 at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	Cullin3 antibody, KIAA0617 antibody
Application Note	This antibody reacts with human Cul3 by western blot and immunoprecipitation. The antibody immunoprecipitates in vitro translated product and protein from cell lysates (using HeLa or NIH-3T3). An 88.9 kDa band corresponding to human Cul3 is detected. Most cell lines expressing Cul3 can be used as a positive control. Researchers should determine optimal titers for other applications.
Background	Cul3 antibody is ideal for Cell Biology, Cancer and Ubiquitin research. Cullins assemble a potentially large number of ubiquitin ligases by binding to the RING protein ROC1 to catalyse polyubiquitination, as well as binding to various specificity factors to recruit substrates. Cullin 3 is an essential component of the SCF (SKP1-CUL1-F-box protein) E3 ubiquitin ligase complex, which mediates the ubiquitination of proteins involved in cell cycle progression, signal transduction and transcription. In the SCF complex, cul3 serves as a rigid scaffold that organizes the SKP1-F-box protein and RBX1 subunits. Cul3 may also contribute to catalysis through positioning of the substrate and the ubiquitin-conjugating enzyme. Unlike Cul1 and Cul2, Cul3 seems not to be a part of the SCF complex consisting of CUL1, RBX1, SKP1 and SKP2. Cul3 also interacts with RNF7 and is part of a complex with TIP120A/CAND1, Cyclin E and RBX1.
Purity And Specificity	Anti-Cul3 antibody is monospecific antiserum processed by delipidation and defibrination followed by sterile filtration. This product reacts with human Cullin 3. Cross reactivity is expected against mouse Cul3 based on sequence homology. Cross reactivity with other human cullins is unlikely based on sequence homology.
Assay Dilutions	User Optimized
ELISA	1:2,000 - 1:10,000
Immunohistochemistry	User Optimized
WESTERN BLOT	1:500 - 1:1,000
IHC	User Optimized
OTHER ASSAYS	User Optimized
Immunogen	Cul3 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 1-12 of Human Cul3 (N-terminus) coupled to KLH.
General Reference	Singer,J.D., Gurian-West,M., Clurman,B. and Roberts,J.M. (1999) Cullin-3 targets cyclin E for ubiquitination and controls S phase in mammalian cells. Genes Dev. 13 (18), 2375-2387. Du,M., Sansores-Garcia,L., Zu,Z. and Wu,K.K. (1998) Cloning and expression analysis of a novel salicylate suppressible gene, Hs-CUL-3, a member of cullin/Cdc53 family. J. Biol. Chem. 273 (38), 24289-24292. Jentsch S, Pyrowolakis G. (2000) Ubiquitin and its kin: how close are the family ties? Trends Cell Biol. 10(8):335-42.
Related Products	

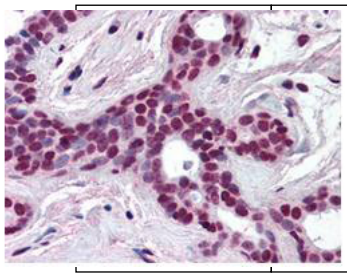
000-001-485	F-Box Protein 43 (Fbp5B) CONTROL PEPTIDE - 000-001-485
000-001-490	F-Box Protein Fbp5A CONTROL PEPTIDE - 000-001-490
100-401-A01	Anti-Cul1 (C-terminal specific) [RABBIT) Antibody - 100-401-A01
100-401-A02	Anti-Cul2 (C-terminal specific) [RABBIT) Antibody - 100-401-A02

Related Links

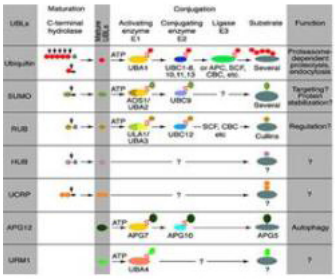
NCBI	http://www.ncbi.nlm.nih.gov/protein/4503165
NCBI - 4503165	http://www.ncbi.nlm.nih.gov/protein/4503165
UniProt - Q13618	http://www.uniprot.org/uniprot/Q13618
Gene ID - 8452	http://www.ncbi.nlm.nih.gov/gene/8452

Images

1	Rockland's Anti-CUL3 antibody was diluted 1:500 to detect CUL3 in human breast tissue. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counter stain.



2	Most modifiers mature by proteolytic processing from inactive precursors (a; amino acid). Arrowheads point to the cleavage sites. Ubiquitin is expressed either as polyubiquitin or as a fusion with ribosomal proteins. Conjugation requires activating (E1) and conjugating (E2) enzymes that form thiolesters (S) with the modifiers. Modification of cullins by RUB involves SCF(SKP1/cullin-1/F-box protein) /CBC(cullin-2/elongin B/elonginC) -like E3 enzymes that are also involved in ubiquitination. In contrast to ubiquitin, the UBLs do not seem to form multi-UBL chains. UCRP(ISG15) resembles two ubiquitin moieties linked head-to-tail. Whether HUB1 functions as a modifier is currently unclear. APG12 and URM1 are distinct from the other modifiers because they are unrelated in sequence to ubiquitin. Data contributed by S.Jentsch, see references below.



Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.