

Anti-Cullin-3 Cul3 Antibody

Catalog Number: A00747

About CUL3

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 catalyze 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.

Overview

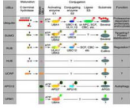
Product Name	Anti-Cullin-3 Cul3 Antibody
Reactive Species	Human
Description	Boster Bio Anti-Cullin-3 Cul3 Antibody (Catalog # A00747). Tested in IHC, IP, WB applications. This antibody reacts with Human.
Application	ELISA, IP, IHC, WB
Clonality	Polyclonal
Formulation	0.01% (w/v) Sodium Azide
Storage Instructions	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. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Rabbit
Uniprot ID	Q13618

Technical Details

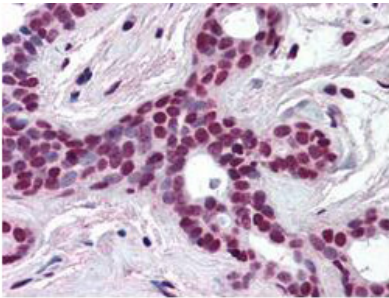
Immunogen	Cul3 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the N-Terminal near amino acids 1-25 of Human Cul3 coupled to KLH.
Predicted Reactive Species	Bovine, Canine, Equine, Goat, Guinea Pig, Rabbit, Yeast, Zebrafish
Isotype	Antiserum
Form	Liquid (sterile filtered)

Concentration	85 mg/mL by Refractometry
Purification	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.
Suggested Dilutions	ELISA: 1:2,000 - 1:10,000 IHC: User optimized IP: 1:100 WB: 1:500 - 1:1,000 Anti-Cul3 has been tested by immunohistochemistry. 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.

Anti-Cullin-3 Cul3 Antibody (A00747) Images



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 thioesters (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.



Boster'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.

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