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

Anti-ROC1 Picoband Antibody

Catalog # ABO12484

Product Information

Application	WB
Primary Accession	P62877
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for E3 ubiquitin-protein ligase RBX1(RBX1) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	9978
Other Names	E3 ubiquitin-protein ligase RBX1, 6.3.2.-, Protein ZYP, RING finger protein 75, RING-box protein 1, Rbx1, Regulator of cullins 1, E3 ubiquitin-protein ligase RBX1, N-terminally processed, RBX1, RNF75, ROC1
Calculated MW	12274
Application Details	Western blot, 0.1-0.5 □g/ml, Mouse, Rat, Human
Subcellular Localization	Cytoplasm . Nucleus .
Tissue Specificity	Widely expressed.
Source	Eukaryota
Protein Name	E3 ubiquitin-protein ligase RBX1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ROC1 (76-108aa NHAFHFHCISRWLKTRQVCPLDNREWEFQKYGH), identical to the related mouse sequence.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated

freezing and thawing.

Protein Information

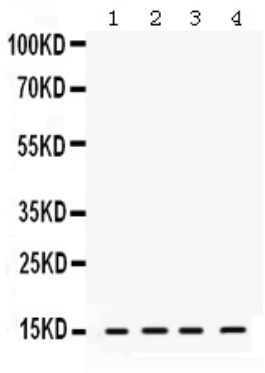
Name	RBX1 (HGNC:9928)
Function	E3 ubiquitin ligase component of multiple cullin-RING-based E3 ubiquitin-protein ligase (CRLs) complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins, including proteins involved in cell cycle progression, signal transduction, transcription and transcription-coupled nucleotide excision repair (PubMed:10230407, PubMed:10579999, PubMed:11961546, PubMed:15983046, PubMed:16678110, PubMed:19112177, PubMed:19679664, PubMed:22748924, PubMed:23455478, PubMed:27565346, PubMed:29769719, PubMed:32355176, PubMed:33417871, PubMed:37844242, PubMed:38326650, PubMed:39504960, PubMed:39667934, PubMed:38316879). CRLs complexes and ARIH1 collaborate in tandem to mediate ubiquitination of target proteins, ARIH1 mediating addition of the first ubiquitin on CRLs targets (PubMed:27565346). The functional specificity of the E3 ubiquitin-protein ligase complexes depends on the variable substrate recognition components. As a component of the CSA complex mediates ubiquitination of Pol II subunit POLR2A at 'Lys-1268', a critical TC- NER checkpoint (PubMed:32355176, PubMed:34526721). Core component of the Cul7-RING(FBXW8) ubiquitin ligase complex, which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (PubMed:35982156). Core component of a Cul9-RING ubiquitin ligase complex composed of CUL9 and RBX1, which mediates mono- ubiquitination of p53/TP53 (PubMed:38605244). Recruits the E2 ubiquitin-conjugating enzyme CDC34 to the complex and brings it into close proximity to the substrate. Probably also stimulates CDC34 autoubiquitination. May be required for histone H3 and histone H4 ubiquitination in response to ultraviolet and for subsequent DNA repair. Promotes the neddylation of CUL1, CUL2, CUL4 and CUL4 via its interaction with UBE2M. Involved in the ubiquitination of KEAP1, ENC1 and KLHL41. In concert with ATF2 and CUL3, promotes degradation of KAT5 thereby attenuating its ability to acetylate and activate ATM. As part of a multisubunit complex composed of elongin BC complex (ELOB and ELOC), elongin A/ELOA, RBX1 and CUL5; polyubiquitinates monoubiquitinated POLR2A (PubMed:19920177).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Widely expressed.

Background

RING-box protein 1, also known as ROC1, is a protein that in humans is encoded by the RBX1 gene. This gene is mapped to chromosome 22q13.2 based on an alignment of the RBX1 sequence with the genomic sequence. ROC1 is recruited by cullin-1 to form a quaternary SCF (HOS)-ROC1 holoenzyme (with SKP1 and the BTRCP homolog HOS). SCF (HOS)-ROC1 binds IKK-beta-phosphorylated I-kappa-B-alpha and catalyzes its ubiquitination in the presence of ubiquitin, E1, and CDC34. Conclusively, ROC1 plays a unique role in the ubiquitination reaction by heterodimerizing with cullin-1 to catalyze ubiquitin polymerization.

Images

Anti- ROC1 Picoband antibody, ABO12484, Western



blottingAll lanes: Anti ROC1 (ABO12484) at 0.5ug/mlLane 1: Rat Testis Tissue Lysate at 50ugLane 2: Rat Brain Tissue Lysate at 50ugLane 3: Mouse Brain Tissue Lysate at 50ugLane 4: Mouse Spleen Tissue Lysate at 50ugPredicted bind size: 15KDObserved bind size: 15KD

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