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Datasheet for 600-401-991

UBE2J1 Antibody

Overview

Description:	Anti-Ubiquitin-Conjugating Enzyme E2 J1 (Ube2j1) (RABBIT) Antibody - 600-401-991
Item No.:	600-401-991
Size:	100 µg
Applications:	ELISA, WB, IF, Multiplex
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. Ube2j1 and Ube2j2 are homologs of the yeast ubiquitin-conjugating enzyme UBC6, which catalyzes the covalent attachment of ubiquitin to other proteins. These proteins constitute a distinct family of ubiquitin-conjugating enzymes sharing a conserved non-canonical active site sequence and a C-terminal transmembrane domain. By analogy with yeast UBC6, Ube2j1 and Ube2j2 are localized to the endoplasmic reticulum and seem to function in the selective degradation of misfolded membrane proteins and in general mediation of the stress response.
Synonyms:	rabbit anti-UBE2J1 antibody, rabbit anti-E2 J1 antibody, rabbit anti-Ubiquitin conjugating enzyme E2J1 antibody, Non-canonical ubiquitin-conjugating enzyme 1, Ube2j1, E2 ubiquitin-conjugating enzyme J1, NCUBE-1, Yeast ubiquitin-conjugating enzyme UBC6 homolog E, HsUBC6e
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	UBE2J1
Reactivity:	Human

Immunogen Type:	Conjugated Peptide
Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to residues near the amino terminus of the human Ube2j1 protein.
Purity/Specificity:	This affinity purified antibody is directed against human Ube2j1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. A BLAST analysis was used to suggest cross-reactivity with Ube2j1 protein from human, mouse and rat based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.
Relevant Links:	• NCBI - 37577122 • UniProtKB - Q9Y385 • GeneID - 51465

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	IF, Multiplex (Based on references)
Application Note:	This affinity purified antibody has been tested for use in ELISA, western blotting and immunoprecipitation. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 35-40 kDa in size corresponding to Ube2j1 protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000 - 1:5,000
IP:	1-2 µg
WB:	1:200 - 1:2,000

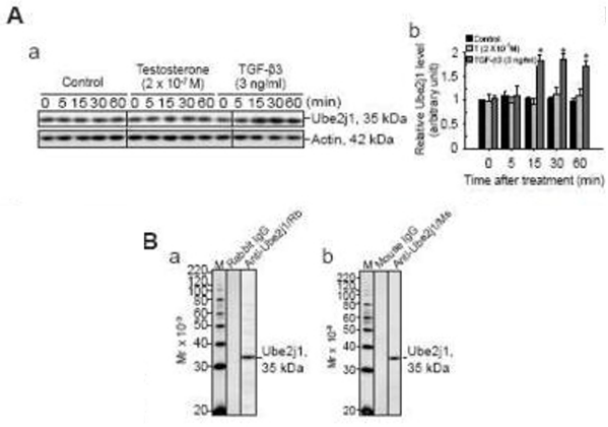
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.71 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

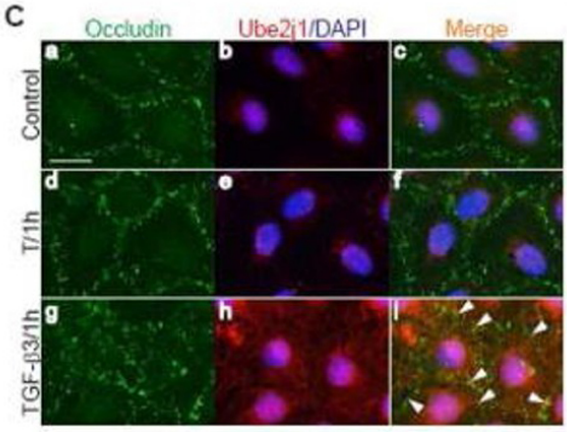
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial 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:	Expiration date is one (1) year from date of receipt.

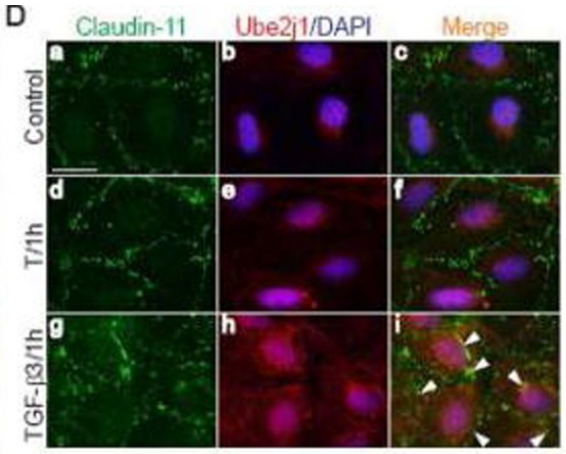
Images



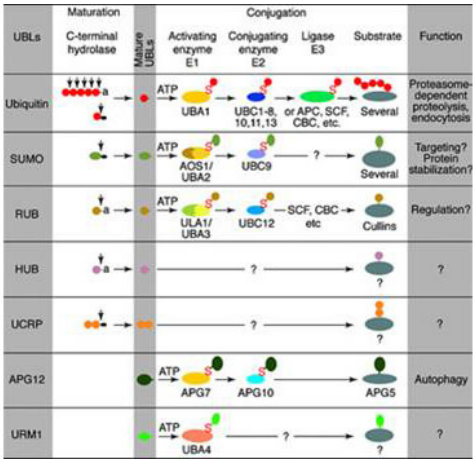
Western Blot
(A) Sertoli cells were cultured and treated as described in Materials and Methods and the legend to Fig. 1. Blots were probed with an anti-Ube2j1 antibody (see Table 1) using actin which served as a protein loading control. TGF-β3, but not testosterone, was shown to induce the steady-state level of Ube2j1 in the Sertoli cell epithelium (a). Histogram shown in b represents composite results from several immunoblots (n = 3–4), such as the one shown in a. Each data point was normalized against actin, and time 0 in each experimental group was arbitrarily set at 1 against which statistical analysis was performed. *, P<0.05. (B) Immunoblot analysis (7.5% T gel) using lysate from Sertoli cells (SC) (30 µg protein) and the corresponding rabbit (Rb) (Ba) or mouse (Ms) (Bb) anti-Ube2j1 antibody (see Table 1) as well as the normal rabbit or mouse IgG, illustrating the specificity of the anti-Ube2j1 antibody. M, marker. Fig 6. PMID: 20682309



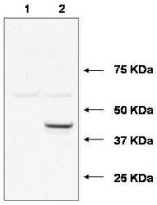
Immunofluorescence Microscopy
(C) Dual-labeled immunofluorescence analysis in a-i illustrating an increase in co-localization between occludin (green) and Ube2j1 (red) after TGF-β3, but not testosterone, treatment (Ci versus c,f). DAPI (blue) was used to visualize nuclei. White arrowheads in Ci indicate an increase in the co-localization of occludin with Ube2j1 after TGF-β3 treatment (Ci versus Cc,f). Scale bar = 10 µm in Ca, which also applies to Cb-i. Fig 6. PMID: 20682309



Immunofluorescence Microscopy
(D) The study shown in (C) was performed using claudin-11 (green), another putative TJ-protein at the BTB, with similar results. Scale bar = 10 µm in Da, which also applies to Db-i. Fig 6. PMID: 20682309



Pathway
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/elonginB/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. (From Jentsch & Pyrowolakis (2000); see references below.)



Western Blot
Western blot using Rockland's affinity purified anti-Ube2j1 antibody shows detection of Ube2j1 in 293 cells over-expressing Myc-Ube2j1 (Lane 2). Lane 1 contains lysate from mock-transfected 293 cells. Personal Communication, A. Weissman & T. Shang, CCR-NCI, Frederick, MD

References

- Su L et al. Differential effects of testosterone and TGF-β3 on endocytic vesicle-mediated protein trafficking events at the blood-testis barrier. *Exp Cell Res.* (2010)

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