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Datasheet for 200-401-888

Ubiquitin Activating Enzyme E1 Antibody

Overview

Description:	Anti-Ubiquitin Activating Enzyme E1 (RABBIT) Antibody - 200-401-888
Item No.:	200-401-888
Size:	500 µg
Applications:	IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Ubiquitin Activating Enzyme (E1), also known as A1S9 and UBE1, is responsible for the first step in ubiquitin-protein isopeptide bond formation. E1 catalyzes the activation of the C-terminal carboxyl group of ubiquitin by forming a high-energy thioester bond in an ATP-dependent manner. UBE1 is monomeric and contains two active sites within the E1 molecule, allowing it to bind two ubiquitin moieties at a time, with a new ubiquitin forming an adenylate intermediate as the previous one is transferred to the thiol site. Alternative splicing results in 2 transcript variants encoding the same protein, but with different 5' UTR. Isoform 1 has a different 5' noncoding exon compared to isoform 2. Both variants encode the same protein.
Synonyms:	rabbit anti-Ubiquitin Activating Enzyme E1 Antibody, A1S9 antibody, A1S9 protein antibody, A1S9T and BN75 temperature sensitivity complementing antibody, A1S9T antibody, A1ST antibody, GXP 1 antibody, rabbit anti-UBE1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	UBA1
Reactivity:	Human
Immunogen Type:	Recombinant Protein

Immunogen:	Anti-Ubiquitin Activating Enzyme E1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein corresponding to full length Human Ubiquitin Activating Enzyme E1.
Purity/Specificity:	This antibody is directed against human Ubiquitin Activating Enzyme E1 protein. The product was protein A purified from monospecific antiserum followed by further purification to remove the GST tag. A BLAST analysis was used to suggest that this antibody would react with Ubiquitin Activating Enzyme E1 protein from human (100%) rabbit (96%), mouse (95%), rat (95%) and dog (93%) based on a high degree of sequence homology. Cross reactivity against this protein from other sources has not been determined.
Relevant Links:	• UniProtKB - P22314 • NCBI - 23510338 • GeneID - 7317

Application Details

Tested Applications:	IHC, WB
Application Note:	This purified antibody has been tested for use in ELISA, immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band at ~118 kDa in size corresponding to UBE1 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:	1:2,000 - 1:10,000
IHC:	2 mg/ml - 20 µg/ml
WB:	1:1,000 - 1:5,000

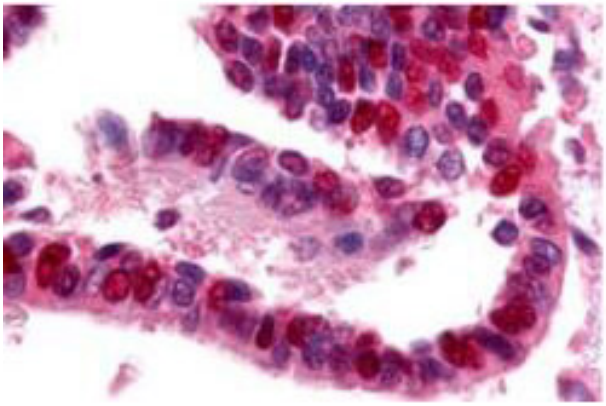
Formulation

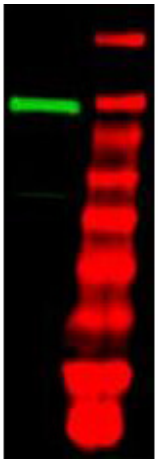
Physical State:	Lyophilized
Concentration:	1.2 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	500 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. 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





Immunohistochemistry
Rockland's Affinity Purified anti-Ubiquitin Activating Enzyme antibody was used at a 10 µg/ml to detect UBE1 in a variety of tissues including adrenal, breast, colon (epithelium), kidney, liver, lung (respiratory epithelium), ovary (oocyte and endothelium), pancreas (islet and exocrine), placenta, prostate (epithelium), skin (epithelium), spleen (lymphocytes), stomach (chief), testis, thymus, tonsil, and uterus (glandular, stroma). In many cells a punctate nuclear staining was observed. Other cells showed both cytoplasmic and nuclear staining. This image shows UBE1 staining of human lung tissue. Tissue was formalin-fixed and paraffin embedded. Personal Communication, Tina Roush, LifeSpan Biosciences, Seattle, WA.

Western Blot
Western blot using Rockland's purified anti-Ubiquitin Activating Enzyme (E1) antibody shows detection of a band at ~118 kDa corresponding to UBE1 (lane 1 800 nm channel). Approximately 35µg of an A431 whole cell lysate (p/n W09-000-361) was separated on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:1,000. Incubation was for 2 h at room temperature followed by washes and reaction with a 1:10,000 dilution of IRDye™800 conjugated Gt-a-Rabbit IgG [H&L] MX10 (p/n 611-132-122) for 45 min at room temperature. Molecular weight markers are shown in lane 2 (700 nm channel). IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

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