


Product datasheet

Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody ab34711

6 References 4 Images

Overview

Product name	Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody
Description	Rabbit polyclonal to E1 Ubiquitin Activating Enzyme 1/UBA1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rabbit, Dog 
Immunogen	Fusion protein corresponding to Human E1 Ubiquitin Activating Enzyme 1/UBA1.
General notes	This product was previously labelled as E1 Ubiquitin Activating Enzyme

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

Properties

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 0.42% Potassium phosphate, 0.87% Sodium chloride
Purity	IgG fraction
Purification notes	The product was purified from monospecific antiserum by a multi step procedure.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab34711** in the following tested applications.

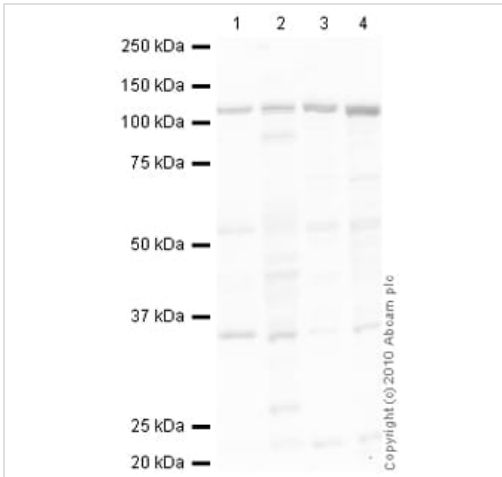
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/5000. Detects a band of approximately 118 kDa (predicted molecular weight: 118 kDa).
IHC-P		Use a concentration of 2 - 20 µg/ml.
ICC/IF		Use a concentration of 5 µg/ml.

Target

Function	Activates ubiquitin by first adenylating its C-terminal glycine residue with ATP, and thereafter linking this residue to the side chain of a cysteine residue in E1, yielding an ubiquitin-E1 thioester and free AMP.
Pathway	Protein modification; protein ubiquitination.
Involvement in disease	Defects in UBA1 are the cause of spinal muscular atrophy X-linked type 2 (SMAX2) [MIM:301830]; also known as X-linked lethal infantile spinal muscular atrophy, distal X-linked arthrogryposis multiplex congenita or X-linked arthrogryposis type 1 (AMCX1). Spinal muscular atrophy refers to a group of neuromuscular disorders characterized by degeneration of the anterior horn cells of the spinal cord, leading to symmetrical muscle weakness and atrophy. SMAX2 is a lethal infantile form presenting with hypotonia, areflexia, and multiple congenital contractures.
Sequence similarities	Belongs to the ubiquitin-activating E1 family.
Post-translational modifications	ISGylated.

Images



Western blot - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody (ab34711)

All lanes : Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody (ab34711) at 1 µg/ml

Lane 1 : Human brain tissue lysate - total protein (ab29466)

Lane 2 : Human liver tissue lysate - total protein (ab29889)

Lane 3 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 4 : MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg/ml per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

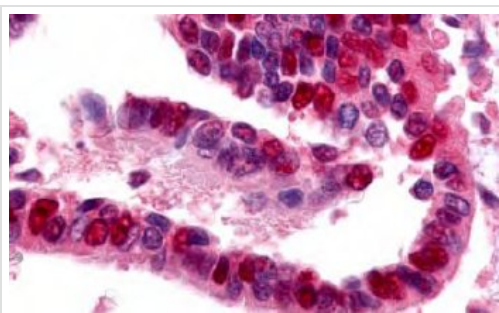
Performed under reducing conditions.

Predicted band size: 118 kDa

Observed band size: 118 kDa

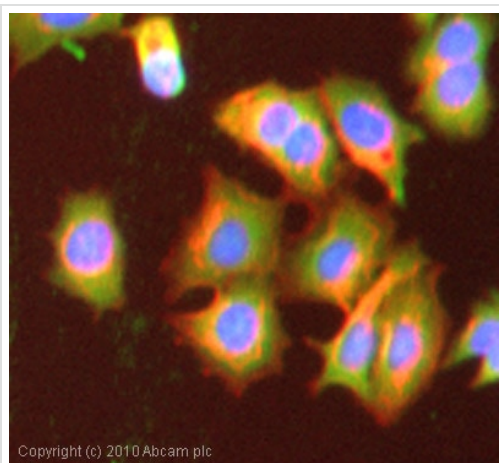
Additional bands at: 35 kDa, 53 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 1 minute



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody (ab34711)

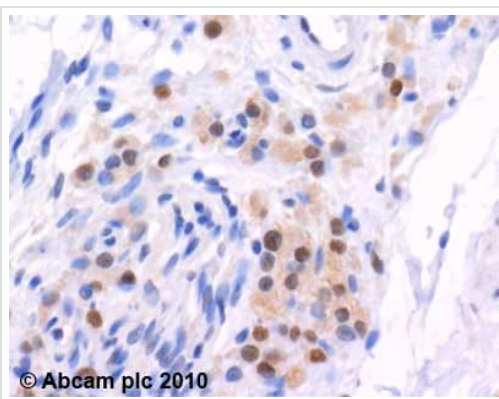
This image shows human lung tissue stained with ab34711 at 10 µg/ml. In many cells apunctate nuclear staining was observed. Other cells showed both cytoplasmic and nuclear staining.



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Immunocytochemistry/ Immunofluorescence - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody (ab34711)

ICC/IF image of ab34711 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab34711, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody (ab34711)

ab34711 (4µg/ml) staining E1 Ubiquitin activating enzyme in human testis using an automated system (DAKO Autostainer Plus). Using this protocol there is nuclear and weak cytoplasmic staining. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H₂O₂ in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

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