abcam

Product datasheet

Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody ab34711

8 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. Database link: **P22314**
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As

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

The Abpromise guarantee 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.

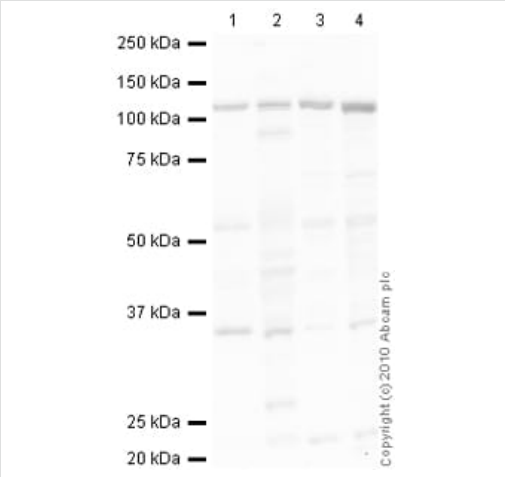
Pathway Protein modification; protein ubiquitination.

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.

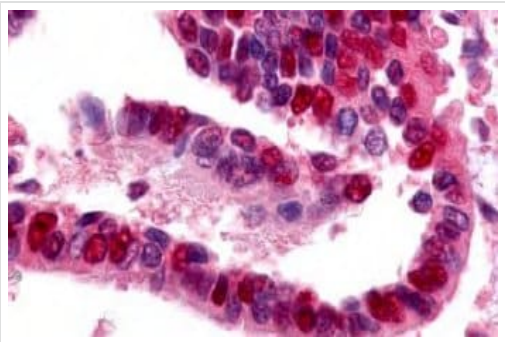
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

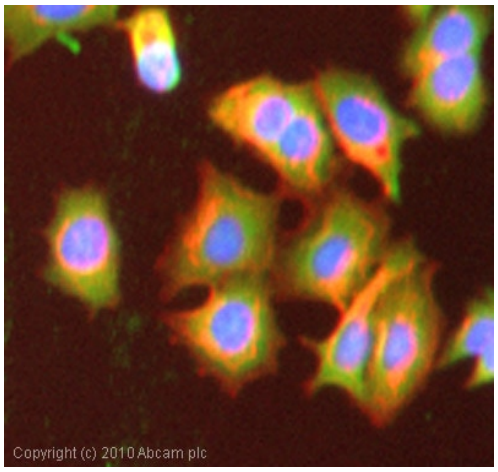
Predicted band size: 118 kDa
Observed band size: 118 kDa
Additional bands at: 35 kDa, 53 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 1 minute



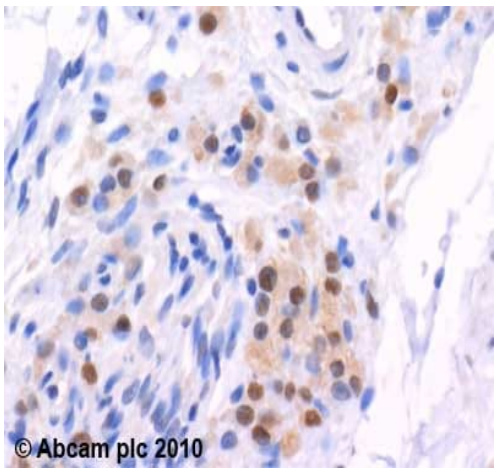
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody (ab34711)

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



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.



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% H_2O_2 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.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish

- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors