abcam

Product datasheet

Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] ab181225

Recombinant RabMAb

1 References 6 Images

Overview

Product name	Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)]
Description	Rabbit monoclonal [EPR14204(B)] to E1 Ubiquitin Activating Enzyme 1/UBA1
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human fetal brain, K562, HeLa and Jurkat lysates; Human kidney tissue; HeLa cells; K562 cells., GST-tagged full-length human recombinant UBA7 and UBA1.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14204(B)

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab181225 in the following tested applications.

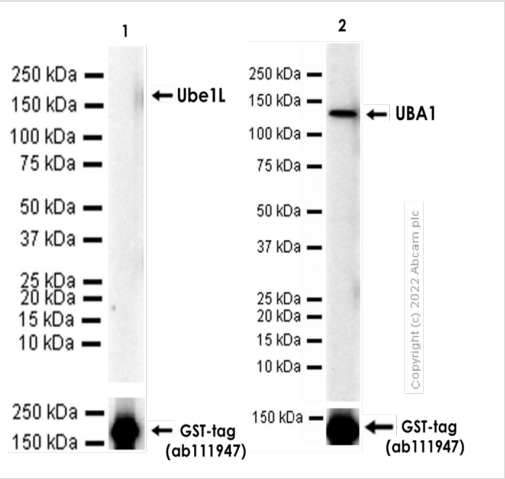
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/10. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/10000. Detects a band of approximately 118 kDa (predicted molecular weight: 118 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

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 [EPR14204(B)] (ab181225)

All lanes : Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] (ab181225) at 1/1000 dilution

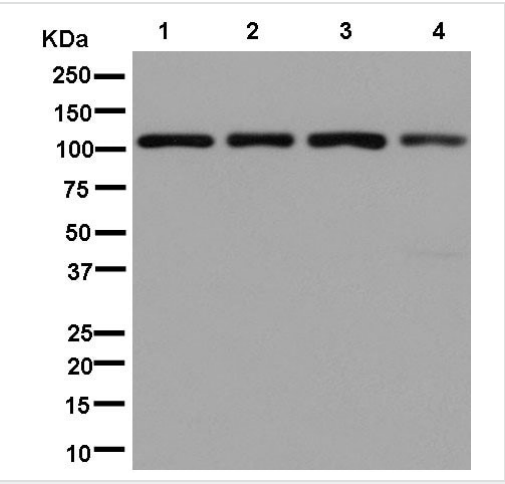
Lane 1 : GST tagged Recombinant Human UBA7(Ube1L) protein (Full length, 166 KDa)
Lane 2 : GST tagged Recombinant Human UBA1 protein (Full length, 146 KDa)

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 118 kDa
Observed band size: 146,166 kDa

Exposure time: 180 seconds

Blocking and diluting buffer: 5% NFDM/TBST



Western blot - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] (ab181225)

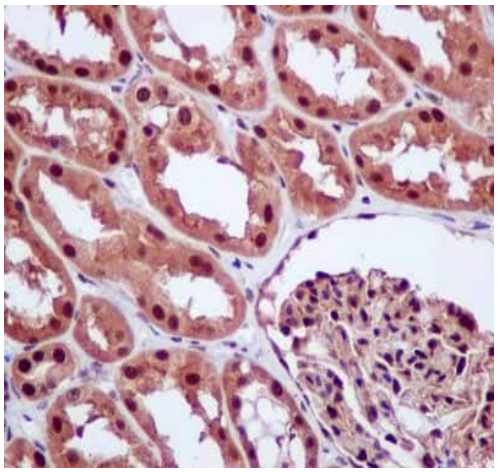
All lanes : Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] (ab181225) at 1/10000 dilution

Lane 1 : Human fetal brain tissue lysate
Lane 2 : K562 cell lysate
Lane 3 : HeLa cell lysate
Lane 4 : Jurkat cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

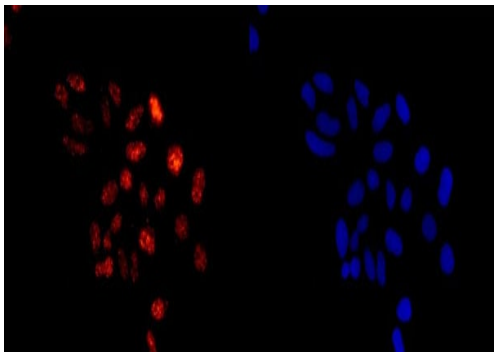
Predicted band size: 118 kDa
Observed band size: 118 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] (ab181225)

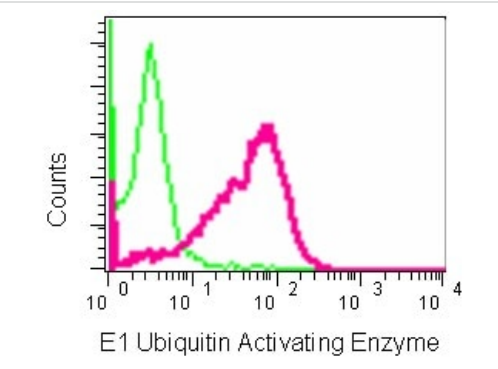
Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling E1 Ubiquitin Activating Enzyme with ab181225 at 1/100 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



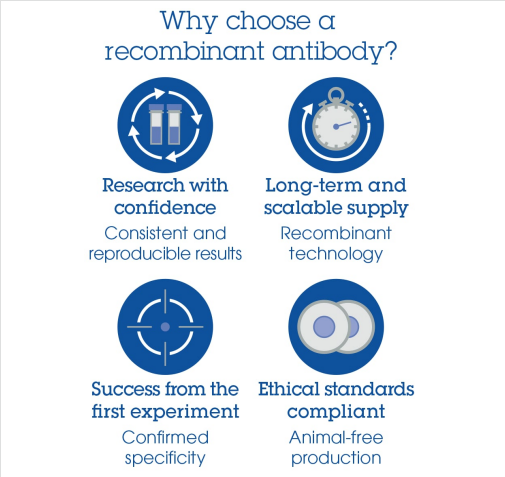
Immunocytochemistry/ Immunofluorescence - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] (ab181225)

Immunofluorescent analysis of acetone-fixed HeLa cells labeling E1 Ubiquitin Activating Enzyme with ab181225 at 1/250 dilution, followed by Goat anti rabbit IgG (Alexa Fluor® 555) secondary antibody at 1/200 dilution (red). Counter stained with Dapi (blue).



Flow Cytometry (Intracellular) - Anti-E1 Ubiquitin Activating Enzyme 1/UBA1 antibody [EPR14204(B)] (ab181225)

Intracellular flow cytometric analysis of2% paraformaldehyde-fixed K562 cells labeling E1 Ubiquitin Activating Enzyme with ab181225 at 1/10 dilution (red) compared to a Rabbit monoclonal IgG isotype control (green), followed byGoat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.



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