

Product datasheet

HRP Anti-ATG7 antibody [EPR6251] ab215336

KO VALIDATED Recombinant RabMAB[®]

3 Images

Overview

Product name	HRP Anti-ATG7 antibody [EPR6251]
Description	HRP Rabbit monoclonal [EPR6251] to ATG7
Host species	Rabbit
Conjugation	HRP
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	HepG2, Hek293, Jurkat, HAP1 WT (shows pos.), Apg7 KO HAP1 (shows neg.)
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p>

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. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.1% Proclin 300 Solution Constituents: 1% BSA, 30% Glycerol (glycerin, glycerine), PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6251
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab215336 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		1/5000. Detects a band of approximately 77 kDa (predicted molecular weight: 77 kDa).

Target

Function E1-like activating enzyme involved in the 2 ubiquitin-like systems required for cytoplasm to vacuole transport (Cvt) and autophagy. Activates ATG12 for its conjugation with ATG5 as well as the ATG8 family proteins for their conjugation with phosphatidylethanolamine. Both systems are needed for the ATG8 association to Cvt vesicles and autophagosomes membranes. Required for autophagic death induced by caspase-8 inhibition. Required for mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Modulates p53/TP53 activity to regulate cell cycle and survival during metabolic stress. Plays also a key role in the maintenance of axonal homeostasis, the prevention of axonal degeneration, the maintenance of hematopoietic stem cells, the formation of Paneth cell granules, as well as in adipose differentiation.

Tissue specificity Widely expressed, especially in kidney, liver, lymph nodes and bone marrow.

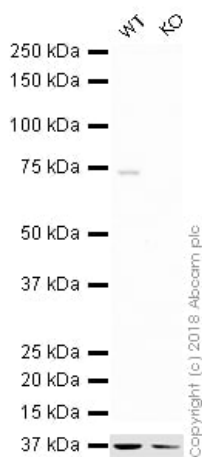
Sequence similarities Belongs to the ATG7 family.

Domain The C-terminal part of the protein is essential for the dimerization and interaction with ATG3 and ATG12.
The N-terminal FAP motif (residues 15 to 17) is essential for the formation of the ATG89-PE and ATG5-ATG12 conjugates.

Post-translational modifications Acetylated by EP300.

Cellular localization Cytoplasm. Preautophagosomal structure. Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme.

Images



Western blot - HRP Anti-ATG7 antibody [EPR6251] (ab215336)

All lanes : HRP Anti-ATG7 antibody [EPR6251] (ab215336) at 1/5000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

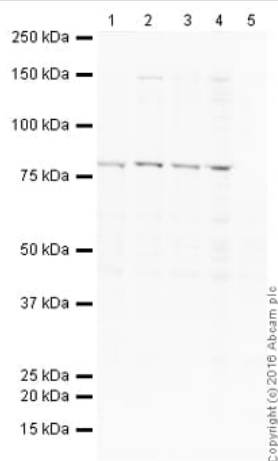
Lane 2 : ATG7 knockout HAP1 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 77 kDa

Exposure time: 20 minutes

ab215336 was shown to specifically react with Apg7 in wild-type HAP1 cells as signal was lost in ATG7 knockout cells. Wild-type and ATG7 knockout samples were subjected to SDS-PAGE. Ab215336 and **ab184095** (Mouse monoclonal [mAbcam 9484] to GAPDH - Loading Control (Alexa Fluor® 680) loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. The loading control was imaged using the Licor Odyssey CLx prior to blots being developed with ECL technique.



Western blot - HRP Anti-ATG7 antibody [EPR6251] (ab215336)

All lanes : HRP Anti-ATG7 antibody [EPR6251] (ab215336) at 1/5000 dilution

Lane 1 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate at 10 µg

Lane 2 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate at 10 µg

Lane 3 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate at 10 µg

Lane 4 : HAP1 WT at 20 µg

Lane 5 : Apg7 KO HAP1 at 20 µg

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 77 kDa

Observed band size: 77 kDa

Exposure time: 20 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab215336 overnight at 4°C. Antibody binding was visualised using ECL development solution [ab133406](#).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

HRP Anti-ATG7 antibody [EPR6251] (ab215336)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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