

Product datasheet

Anti-Raptor antibody [EP539Y] ab40768

Recombinant RabMAb

★★★★★ [3 Abreviews](#) [28 References](#) [7 Images](#)

Overview

Product name	Anti-Raptor antibody [EP539Y]
Description	Rabbit monoclonal [EP539Y] to Raptor
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P Unsuitable for: Flow Cyt, ICC/IF or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Raptor (C terminal). The exact sequence is proprietary.
Positive control	Normal human colon and Human cardiac muscle; mouse and rat brain tissue lysate HEK-293, HeLa, MCF-7 and A431 cell lysate;
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.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP539Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab40768 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	★★★★★ (2)	1/1000 - 1/5000. Detects a band of approximately 140 kDa (predicted molecular weight: 149 kDa). For unpurified use at 1/500.
IHC-P		1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See IHC antigen retrieval protocols .

Application notes

Is unsuitable for Flow Cyt, ICC/IF or IP.

Target

Function

Involved in the control of the mammalian target of rapamycin complex 1 (mTORC1) activity which regulates cell growth and survival, and autophagy in response to nutrient and hormonal signals; functions as a scaffold for recruiting mTORC1 substrates. mTORC1 is activated in response to growth factors or amino-acids. Growth factor-stimulated mTORC1 activation involves a AKT1-mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino-acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eIF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-389', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation.

Tissue specificity

Highly expressed in skeletal muscle, and in a lesser extent in brain, lung, small intestine, kidney and placenta.

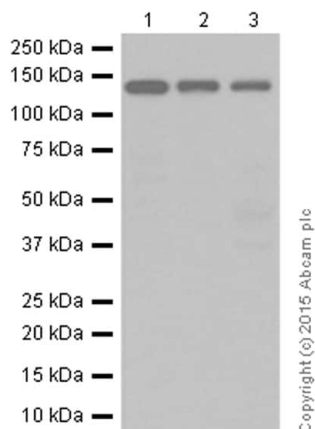
Sequence similarities

Belongs to the WD repeat RAPTOR family.
Contains 7 WD repeats.

Cellular localization

Cytoplasm. Lysosome. Targeting to lysosomes depends on amino acid availability.

Images



Western blot - Anti-Raptor antibody [EP539Y] (ab40768)

All lanes : Anti-Raptor antibody [EP539Y] (ab40768) at 1/5000 dilution

Lane 1 : HEK-293 (human embryonic kidney) whole cell lysate

Lane 2 : HeLa (human cervix adenocarcinoma) whole cell lysate

Lane 3 : MCF-7 (human breast carcinoma) whole cell lysate

Lysates/proteins at 20 µg per lane.

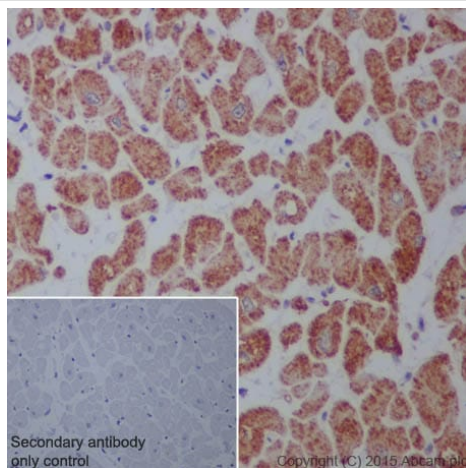
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 149 kDa

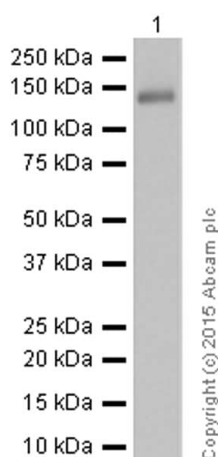
Observed band size: 140 kDa

Blocking/Diluting buffer 5% NFDM /TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Raptor antibody [EP539Y] (ab40768)

Immunohistochemical analysis of paraffin-embedded human cardiac muscle sections labelling Raptor with purified ab40768 at dilution of 1/100. The secondary antibody used was [ab97051](#); a goat anti-rabbit IgG H&L (HRP) at dilution of 1/500. The sample was counterstained with hematoxylin. Antigen retrieval was performed using EDTA Buffer; pH 9.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.



Western blot - Anti-Raptor antibody [EP539Y] (ab40768)

Anti-Raptor antibody [EP539Y] (ab40768) at 1/5000 dilution + Rat brain tissue lysate at 20 mg/ml

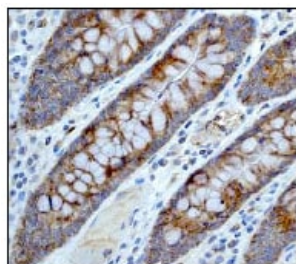
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 149 kDa

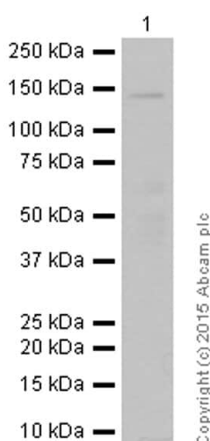
Observed band size: 140 kDa

Blocking/Diluting buffer 5% NFDM /TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Raptor antibody [EP539Y] (ab40768)

Immunohistochemical analysis of paraffin-embedded human colon using anti-Raptor ab40768 at 1/50 dilution.



Western blot - Anti-Raptor antibody [EP539Y] (ab40768)

Anti-Raptor antibody [EP539Y] (ab40768) at 1/1000 dilution + Mouse brain tissue lysate at 10 µg

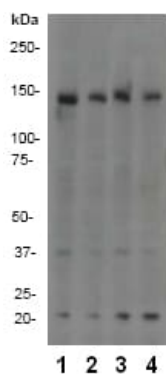
Secondary

Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 149 kDa

Observed band size: 140 kDa

Blocking/Diluting buffer 5% NFDM /TBST



Western blot - Anti-Raptor antibody [EP539Y] (ab40768)

All lanes : Anti-Raptor antibody [EP539Y] (ab40768) at 1/500 dilution

Lane 1 : 293 cell lysate

Lane 2 : MCF-7 cell lysate

Lane 3 : HeLa cell lysate

Lane 4 : A431 cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 149 kDa

Observed band size: 140 kDa

Additional bands at: 21 kDa, 37 kDa. We are unsure as to the identity of these extra bands.

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

Anti-Raptor antibody [EP539Y] (ab40768)

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

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