abcam

Product datasheet

Anti-TORC2 antibody ab244418

3 Images

Overview

Product name	Anti-TORC2 antibody
Description	Rabbit polyclonal to TORC2
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF, IHC-P
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse, Rat, Cow
Immunogen	Recombinant fragment corresponding to Human TORC2 aa 150-300. Database link: **Q53ET0** Run BLAST with Run BLAST with
Positive control	IHC-P: Human cerebral cortex tissue. WB: TORC2 over-expression HEK-293T lysate (Co-expressed with a C-terminal myc-DDK tag (~3.1 kDa). ICC/IF: U-2 OS cells.
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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab244418 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		Use a concentration of 0.04 - 0.4 µg/ml. Predicted molecular weight: 73 kDa.
ICC/IF		Use a concentration of 0.25 - 2 µg/ml. Fixation/Permeabilization: PFA/Triton X-100.
IHC-P		1/50 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function Transcriptional coactivator for CREB1 which activates transcription through both consensus and variant cAMP response element (CRE) sites. Acts as a coactivator, in the SIK/TORC signaling pathway, being active when dephosphorylated and acts independently of CREB1 'Ser-133' phosphorylation. Enhances the interaction of CREB1 with TAF4. Regulates gluconeogenesis as a component of the LKB1/AMPK/TORC2 signaling pathway. Regulates the expression of specific genes such as the steroidogenic gene, StAR. Potent coactivator of PPARGC1A and inducer of mitochondrial biogenesis in muscle cells. Also coactivator for TAX activation of the human T-cell leukemia virus type 1 (HTLV-1) long terminal repeats (LTR).

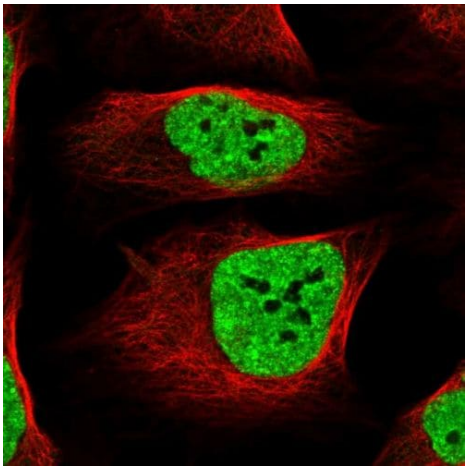
Tissue specificity Most abundantly expressed in the thymus. Present in both B and T lymphocytes. Highly expressed in HEK293T cells and in insulinomas. High levels also in spleen, ovary, muscle and lung, with highest levels in muscle. Lower levels found in brain, colon, heart, kidney, prostate, small intestine and stomach. Weak expression in liver and pancreas.

Sequence similarities Belongs to the TORC family.

Post-translational modifications Phosphorylation/dephosphorylation states of Ser-171 are required for regulating transduction of CREB activity. TORCs are inactive when phosphorylated, and active when dephosphorylated at this site. This primary site of phosphorylation, is regulated by cAMP and calcium levels and is dependent on the phosphorylation of SIKs by LKB1. Both insulin and AMPK increase this phosphorylation, of TORC2 while glucagon suppresses it.

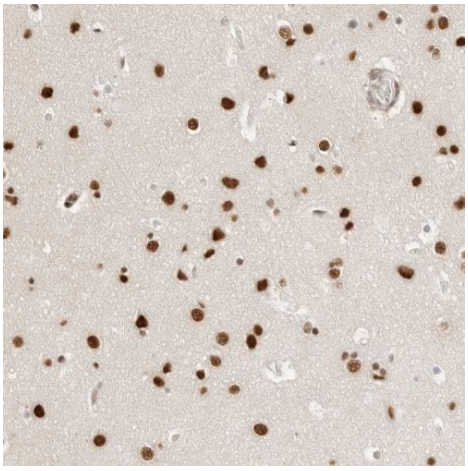
Cellular localization Cytoplasm. Nucleus. Translocated from the nucleus to the cytoplasm on interaction of the phosphorylated form with 14-3-3 protein. In response to cAMP levels and glucagon, relocated to the nucleus.

Images



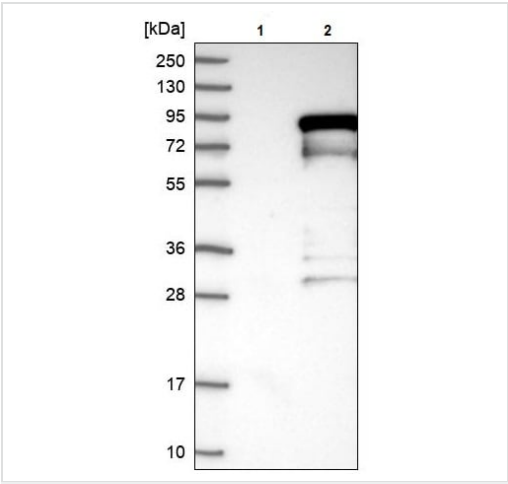
Immunocytochemistry/ Immunofluorescence - Anti-TORC2 antibody (ab244418)

PFA-fixed, Triton X-100 permeabilized U-2 OS (human bone osteosarcoma epithelial cell line) cells stained for TORC2 (green) using ab244418 at 4 µg/ml in ICC/IF.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TORC2 antibody (ab244418)

Paraffin-embedded human cerebral cortex tissue stained for TORC2 using ab244418 at 1/50 dilution in immunohistochemical analysis.



Western blot - Anti-TORC2 antibody (ab244418)

All lanes : Anti-TORC2 antibody (ab244418) at 0.4 µg/ml

Lane 1 : Vector only transfected HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) lysate
Lane 2 : TORC2 over-expression HEK-293T lysate (Co-expressed with a C-terminal myc-DDK tag (~3.1 kDa)

Predicted band size: 73 kDa

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

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