

Anti-TORC2 Antibody
Catalog # ABO11296**Specification**

Anti-TORC2 Antibody - Product Information

Application	WB
Primary Accession	Q53ET0
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for CREB-regulated transcription coactivator 2(CRTC2) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-TORC2 Antibody - Additional Information

Gene ID 200186

Other Names

CREB-regulated transcription coactivator 2, Transducer of regulated cAMP response element-binding protein 2, TORC-2, Transducer of CREB protein 2, CRTC2, TORC2

Calculated MW

73302 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular 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.

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. .

Protein Name

CREB-regulated transcription coactivator 2

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human TORC2(595-611aa QDPHTFNHQNLTHCSRH), different from the related rat sequence by three amino acids, and from the related mouse sequence by two amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the TORC family.

Anti-TORC2 Antibody - Protein Information

Name CRTC2

Synonyms TORC2

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).

Cellular Location

Cytoplasm. Nucleus. Note=Translocated from the nucleus to the cytoplasm on interaction of the phosphorylated form with 14-3-3 protein (PubMed:15454081). In response to cAMP levels and glucagon, relocated to the nucleus (PubMed:15454081)

Tissue Location

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.

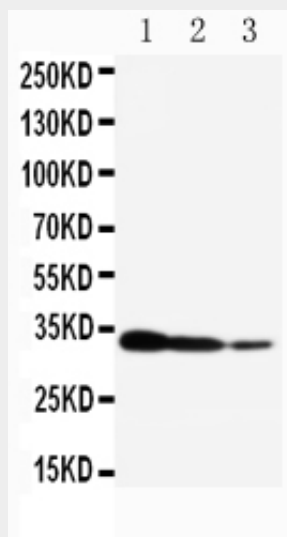
Anti-TORC2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-TORC2 Antibody - Images



Anti-TORC2 antibody, ABO11296, Western blotting Recombinant Protein Detection Source: E.coli derived -recombinant Human CRTC2, 29.3KD(162aa tag+ L585-Q693) Lane 1: Recombinant Human CRTC2 Protein 10ng Lane 2: Recombinant Human CRTC2 Protein 5ng Lane 3: Recombinant Human CRTC2 Protein 2.5ng

Anti-TORC2 Antibody - Background

CRTC2(CREB-Regulated Transcription Coactivator 2), also known as TORC2, is a protein that in humans is encoded by the CRTC2 gene. The International Radiation Hybrid Mapping Consortium mapped the CRTC2 gene to chromosome 1. By cotransfection of TORC2 and reporter genes in HeLa cells, Iourgenko et al.(2003) found that TORC2 potentially activated expression of genes driven by the IL8 promoter or a promoter carrying multiple CRE-like sequences. Liu et al.(2008) demonstrated that a fasting-inducible switch, consisting of the histone acetyltransferase p300 and the nutrient-sensing deacetylase sirtuin-1(SIRT1), maintains energy balance in mice through the sequential induction of CRTC2 and FOXO1. Using mice and primary mouse hepatocytes, Wang et al.(2009) found that Crtc2 functioned as a dual sensor for endoplasmic reticulum(ER) stress and fasting signals.