

#### CRTC2 / TORC2 Antibody (C-Terminus) Rabbit Polyclonal Antibody

Catalog # ALS16020

# Specification

# CRTC2 / TORC2 Antibody (C-Terminus) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW WB, IF, IHC <u>Q53ET0</u> Human, Mouse, Rat Rabbit Polyclonal 73kDa KDa

## CRTC2 / TORC2 Antibody (C-Terminus) - 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

**Target/Specificity** Multiple isoforms of CRTC2 are known to exist. CRTC2 antibody is predicted to not cross-react with CRTC1.

**Reconstitution & Storage** Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

**Precautions** CRTC2 / TORC2 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

## CRTC2 / TORC2 Antibody (C-Terminus) - 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**

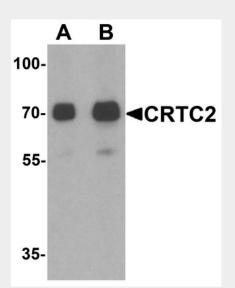
Most abundantly expressed in the thymus. Present in both B and T-lymphocytes. Highly expressed in HEK293T cells and in insulinomas. High levels also in spleen, ovary, muscle and lung, with highest levels in muscle. Lower levels found in brain, colon, heart, kidney, prostate, small intestine and stomach.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

# CRTC2 / TORC2 Antibody (C-Terminus) - Protocols

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

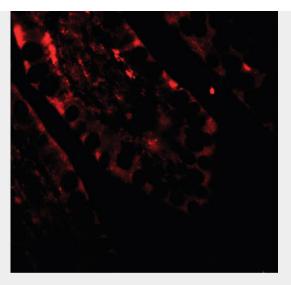
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### CRTC2 / TORC2 Antibody (C-Terminus) - Images

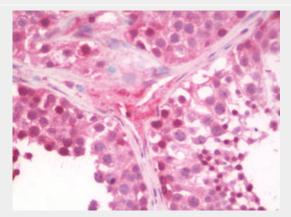


Western blot analysis of CRTC2 in human small intestine tissue lysate with CRTC2 antibody at (A)...

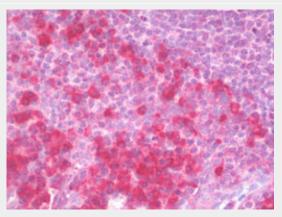




Immunofluorescence of CRTC2 in human small intestine tissue with CRTC2 antibody at 20 ug/ml.



Anti-CRTC2 / TORC2 antibody IHC staining of human testis.



Anti-CRTC2 / TORC2 antibody IHC staining of human tonsil. CRTC2 / TORC2 Antibody (C-Terminus) - Background

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



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## CRTC2 / TORC2 Antibody (C-Terminus) - References

lourgenko V.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:12147-12152(2003). Totoki Y.,et al.Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases. Gregory S.G.,et al.Nature 441:315-321(2006). Conkright M.D.,et al.Mol. Cell 12:413-423(2003). Screaton R.A.,et al.Cell 119:61-74(2004).