

## ARG42593 anti-CRTC2 / TORC2 antibody

Package: 50 µg  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes CRTC2 / TORC2
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat
Tested Application	IHC-P, WB
Specificity	Multiple isoforms of CRTC2 are known to exist. This antibody is predicted to not cross-react with CRTC1.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CRTC2 / TORC2
Species	Human
Immunogen	A 16 amino acid peptide within the last 50 amino acids of Human CRTC2 / TORC2.
Conjugation	Un-conjugated
Alternate Names	Transducer of CREB protein 2; TORC2; Transducer of regulated cAMP response element-binding protein 2; TORC-2; CREB-regulated transcription coactivator 2

### Application Instructions

Application table	Application	Dilution
	IHC-P	10 - 20 µg/ml
	WB	0.5 - 2 µg/ml
Application Note	IHC-P: Antigen Retrieval: Heat mediation. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Human small intestine	
Observed Size	~ 71 kDa	

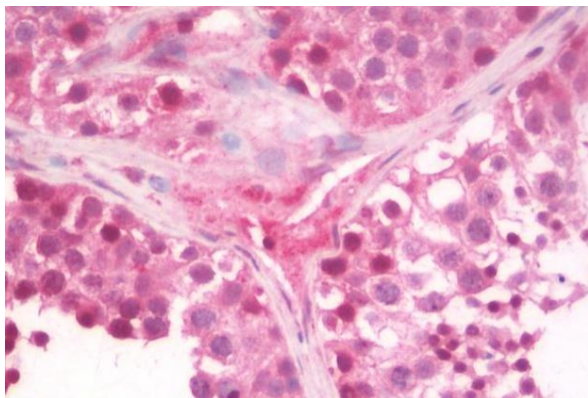
### Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.02% Sodium azide.
Preservative	0.02% Sodium azide
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

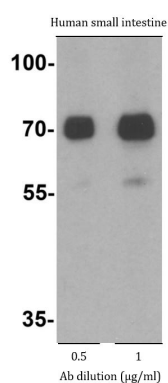
## Bioinformation

Gene Symbol	CRTC2
Gene Full Name	CREB regulated transcription coactivator 2
Background	This gene encodes a member of the transducers of regulated cAMP response element-binding protein activity family of transcription coactivators. These proteins promote the transcription of genes targeted by the cAMP response element-binding protein, and therefore play an important role in many cellular processes. Under basal conditions the encoded protein is phosphorylated by AMP-activated protein kinase or the salt-inducible kinases and is sequestered in the cytoplasm. Upon activation by elevated cAMP or calcium, the encoded protein translocates to the nucleus and increases target gene expression. Single nucleotide polymorphisms in this gene may increase the risk of type 2 diabetes. A pseudogene of this gene is located on the long arm of chromosome 5. [provided by RefSeq, Dec 2010]
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). [UniProt]
Calculated Mw	73 kDa
PTM	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 (SIK1 and SIK2) by LKB1. Both insulin and AMPK increase this phosphorylation of CRTC2 while glucagon suppresses it. Phosphorylation at Ser-274 by MARK2 is induced under low glucose conditions and dephosphorylated in response to glucose influx. Phosphorylation at Ser-274 promotes interaction with 14-3-3 proteins and translocation to the cytoplasm.  Asymmetric dimethylation of arginine residues by PRMT6 enhances the association of CRTC2 with CREB on the promoters of gluconeogenic genes. [UniProt]
Cellular Localization	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). [UniProt]



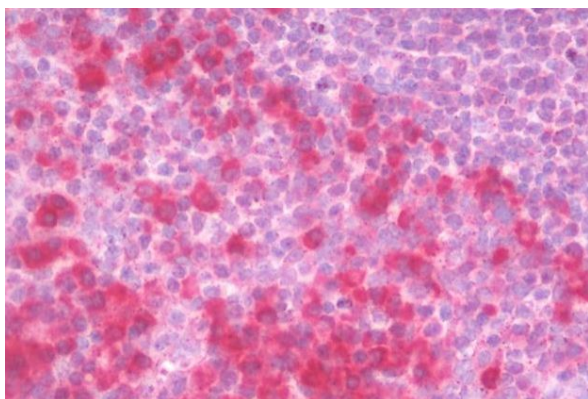
ARG42593 anti-CRTC2 / TORC2 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human testis tissue. Antigen Retrieval: Heat mediation. The tissue section was stained with ARG42593 anti-CRTC2 / TORC2 antibody at 10 µg/ml dilution.



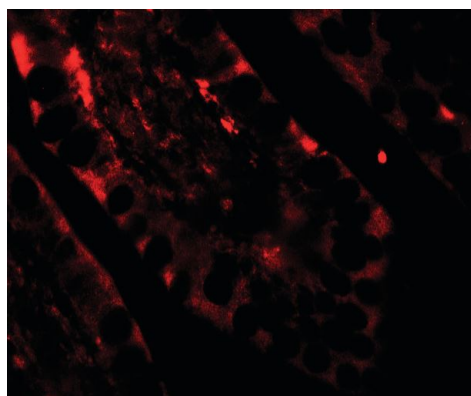
ARG42593 anti-CRTC2 / TORC2 antibody WB image

Western blot: Human small intestine lysates stained with ARG42593 anti-CRTC2 / TORC2 antibody at 0.5 and 1 µg/ml dilution.



ARG42593 anti-CRTC2 / TORC2 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human tonsil tissue. Antigen Retrieval: Heat mediation. The tissue section was stained with ARG42593 anti-CRTC2 / TORC2 antibody.



ARG42593 anti-CRTC2 / TORC2 antibody IHC image

Immunohistochemistry: Human small intestine tissue stained with ARG42593 anti-CRTC2 / TORC2 antibody at 20 µg/ml dilution.