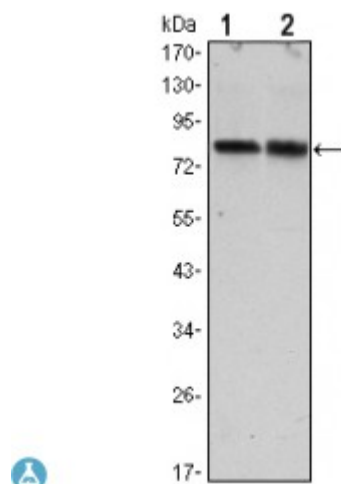


Anti-TORC2 antibody



Description	Mouse monoclonal to TORC2.
Model	STJ98427
Host	Mouse
Reactivity	Human, Simian
Applications	ELISA, FC, IF, IHC, WB
Immunogen	Purified recombinant fragment of human TORC2 expressed in E. Coli.
Gene ID	200186
Gene Symbol	CRTC2
Dilution range	WB 1:500-1:2000IHC 1:200-1:1000IF 1:200-1:1000FC 1:200-1:400ELISA 1:10000
Specificity	TORC2 Monoclonal Antibody detects endogenous levels of TORC2 protein.
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.
Purification	Affinity purification
Clone ID	5B10
Note	For Research Use Only (RUO).
Protein Name	CREB-regulated transcription coactivator 2 Transducer of regulated cAMP response element-binding protein 2 TORC-2 Transducer of CREB protein 2

Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1
Formulation	Ascitic fluid containing 0.03% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:27301OMIM:608972
Alternative Names	CREB-regulated transcription coactivator 2 Transducer of regulated cAMP response element-binding protein 2 TORC-2 Transducer of CREB protein 2
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 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 .
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 (SIK1 and SIK2) by LKB1. Both insulin and AMPK increase this phosphorylation of CRT2 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 CRT2 with CREB on the promoters of gluconeogenic genes.