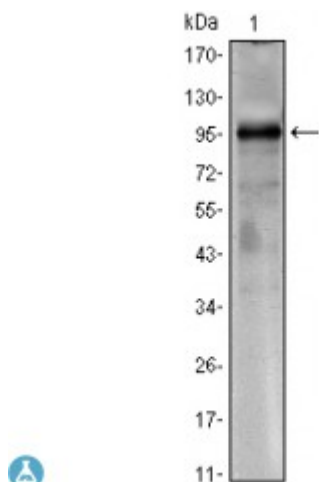


Anti-TORC1 antibody



Description	Mouse monoclonal to TORC1.
Model	STJ98426
Host	Mouse
Reactivity	Human
Applications	ELISA, FC, IF, WB
Immunogen	Purified recombinant fragment of human TORC1 expressed in E. Coli.
Gene ID	23373
Gene Symbol	CRTC1
Dilution range	WB 1:500-1:2000IF 1:200-1:1000FC 1:200-1:400ELISA 1:10000
Specificity	TORC1 Monoclonal Antibody detects endogenous levels of TORC1 protein.
Tissue Specificity	Highly expressed in adult and fetal brain. Located to specific regions such as the prefrontal cortex and cerebellum. Very low expression in other tissues such as heart, spleen, lung, skeletal muscle, salivary gland, ovary and kidney.
Purification	Affinity purification
Clone ID	1B5
Note	For Research Use Only (RUO).
Protein Name	CREB-regulated transcription coactivator 1 Mucoepidermoid carcinoma translocated protein 1 Transducer of regulated cAMP response element-binding protein 1 TORC-1 Transducer of CREB protein 1
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:16062OMIM:607536
Alternative Names	CREB-regulated transcription coactivator 1 Mucoepidermoid carcinoma translocated protein 1 Transducer of regulated cAMP response element-binding protein 1 TORC-1 Transducer of CREB protein 1
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 the expression of specific CREB-activated genes such as the steroidogenic gene, StAR. Potent coactivator of PGC1alpha 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). In the hippocampus, involved in late-phase long-term potentiation (L-LTP) maintenance at the Schaffer collateral-CA1 synapses. May be required for dendritic growth of developing cortical neurons . In concert with SIK1, regulates the light-induced entrainment of the circadian clock. In response to light stimulus, coactivates the CREB-mediated transcription of PER1 which plays an important role in the photic entrainment of the circadian clock.
Cellular Localization	Cytoplasm Nucleus. Cytoplasmic when phosphorylated by SIK or AMPK and when sequestered by 14-3-3 proteins . Translocated to the nucleus on Ser-151 dephosphorylation, instigated by a number of factors including calcium ion and cAMP levels . Light stimulation triggers a nuclear accumulation in the suprachiasmatic nucleus (SCN) of the brain .
Post-translational Modifications	Phosphorylation/dephosphorylation states of Ser-151 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 mediated by SIKs (SIK1 and SIK2), is regulated by cAMP and calcium levels and is dependent on the phosphorylation of SIKs by LKB1 .