

TORC1 Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AP52758

Product Information

Primary Accession	Q6UUV9
Host	Mouse
Clonality	Monoclonal
Isotype	IgM
Calculated MW	67300

Additional Information

Gene ID	23373
Other Names	KIAA0616;CREB regulated transcription coactivator 1;CREB-regulated transcription coactivator 1;CRTC1;CRTC1_HUMAN;FLJ14027;KIAA0616;MECT 1;Mucoepidermoid carcinoma translocated 1;Mucoepidermoid carcinoma translocated protein 1;TORC-1;TORC1;Transducer of CREB protein 1;Transducer of regulated cAMP response element binding protein 1; Transducer of regulated cAMP response element-binding protein (CREB) 1;Transducer of regulated cAMP response element-binding protein 1;WAMTP1.
Format	ascites
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	CRTC1 (HGNC:16062)
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. 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 (By similarity). 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 Location Cytoplasm. Nucleus. Note=Cytoplasmic when phosphorylated by SIK or AMPK and when sequestered by 14-3-3 proteins (PubMed:16817901) Translocated to the nucleus on Ser-151 dephosphorylation, instigated by a number of factors including calcium ion and cAMP levels (PubMed:15589160). Light stimulation triggers a nuclear accumulation in the suprachiasmatic nucleus (SCN) of the brain (By similarity) {ECO:0000250|UniProtKB:Q68ED7, ECO:0000269|PubMed:15589160, ECO:0000269|PubMed:16817901}

Tissue Location 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.

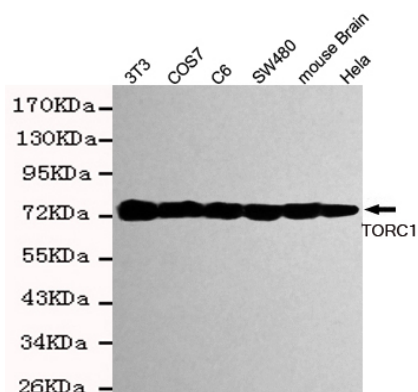
Background

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 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 (By similarity). 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.

References

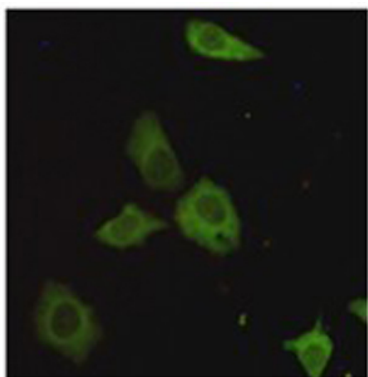
Iourgenko V.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:12147-12152(2003).
 Tonon G.,et al.Nat. Genet. 33:208-213(2003).
 Tonon G.,et al.Nat. Genet. 33:408-408(2003).
 Ota T.,et al.Nat. Genet. 36:40-45(2004).
 Grimwood J.,et al.Nature 428:529-535(2004).

Images



Western blot detection of TORC1 in HeLa,mouse brain,SW480,COS7,C6 and 3T3 cell lysates using TORC1 mouse mAb (1:2000 diluted).Predicted band size:78KDa.Observed band size:78KDa.

Immunocytochemistry staining of HeLa cells fixed with 4% Paraformaldehyde and using TORC1 mouse mAb (dilution 1:200).



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