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MECT1 / Torc1 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AP52722

Product Information

Application	WB, ICC, IP, FC
Primary Accession	Q6UUV9
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
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.
Dilution	WB~~1:1000 ICC~~1:300 IP~~1:500 FC~~1:100
Format	Purified mouse monoclonal in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50%,glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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.

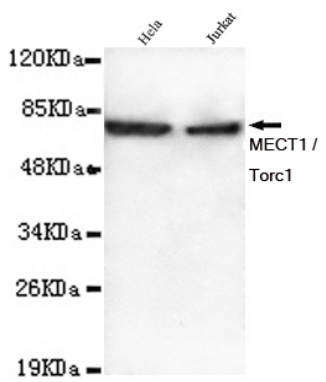
Background

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

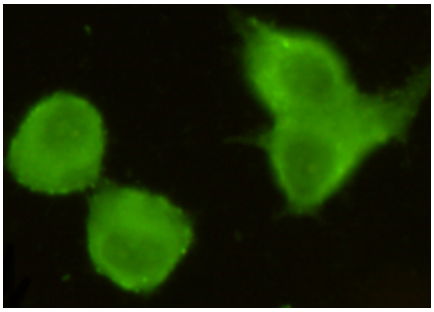
Iourgenko V.,et al.Proc. Natl. Acad. Sci. U.S.A. 100:12147-12152(2003).
Tonon G.,et al.Nat. Genet. 33:208-213(2003).
Tonon G.,et al.Nat. Genet. 33:408-408(2003).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Grimwood J.,et al.Nature 428:529-535(2004).

Images

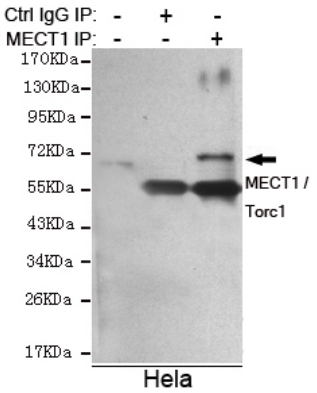


Western blot detection of MECT1 / Torc1 in Hela and Jurkat lysates using MECT1 / Torc1 mouse mAb (1:1000 diluted).Predicted band size: 78KDa.Observed band size: 78KDa.

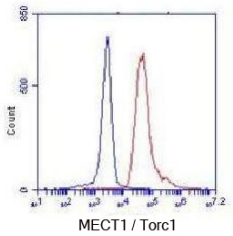
Immunocytochemistry stain of Hela using MECT1 / Torc1



mouse mAb (1:300).



Immunoprecipitation analysis of Hela cell lysate using MECT1 / Torc1 mouse mAb.



Flow Cytometry analysis of K562 cells stained with TORC1(N-terminus) (red, 1/100 dilution), followed by FITC-conjugated goat anti-mouse IgG. Blue line histogram represents the isotype control, normal mouse IgG.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.