

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5)
Mouse Monoclonal Antibody
Catalog # ALS15738**Specification**

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5) - Product Information

Application	WB, IHC, IF, ICC, E, FC
Primary Accession	Q6UUV9
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	67kDa KDa
Dilution	WB~~1:1000 IHC~~1:100~500 IF~~1:50~200 ICC~~N/A E~~N/A FC~~1:10~50

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5) - Additional Information**Gene ID** 23373**Other 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, CRTC1 (HGNC:16062)

Target/Specificity

Human TORC1 / CRTC1

Reconstitution & Storage

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5) is for research use only and not for use in diagnostic or therapeutic procedures.

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5) - 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.

Volume

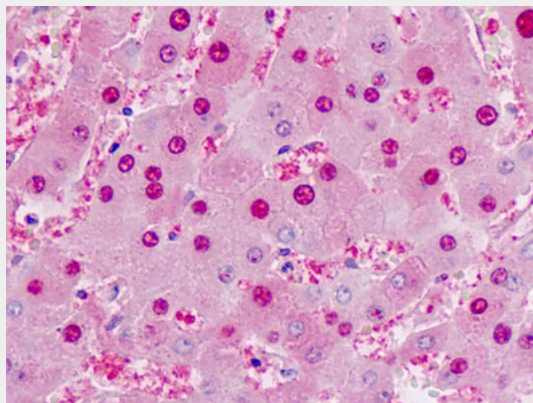
50 µl

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5) - Protocols

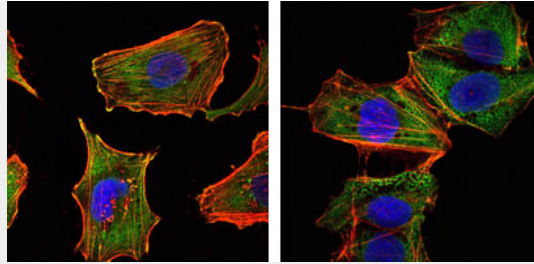
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CRTC1 / MECT1 / TORC1 Antibody (clone 1B5) - Images



Anti-CRTC1 / MECT1 / TORC1 antibody IHC staining of human liver, hepatocytes.



Immunofluorescence of U251 (left) and NTERA2 (right) cells using CRTCl monoclonal antibody (green).

CRTCl / MECT1 / TORCl Antibody (clone 1B5) - 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.

CRTCl / MECT1 / TORCl Antibody (clone 1B5) - 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).