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CRTC1 Antibody (N-term) Blocking Peptide

Synthetic peptide

Catalog # BP9281a

Specification

CRTC1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q6UUV9

CRTC1 Antibody (N-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP9281a was selected from the N-term region of human CRTC1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CRTC1 Antibody (N-term) Blocking Peptide - Background

CRTC1 is transcriptional coactivator for CREB1 which activates transcription through both consensus and variant cAMP response element (CRE) sites. This protein 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, and regulates the expression of specific CREB-activated genes such as the steroidogenic gene, StAR.

CRTC1 Antibody (N-term) Blocking Peptide - References

Komiya,T., et.al., Oncogene 29 (11), 1672-1680 (2010)Lennerz,J.K., et.al., Br. J. Dermatol. 161 (4), 925-929 (2009)Fehr,A., et.al., Genes Chromosomes Cancer 48 (9), 777-785 (2009)

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CRTC1 Antibody (N-term) Blocking Peptide - 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.

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CRTC1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides