

Anti-MECT1 (RABBIT) Antibody
MECT1 Antibody
Catalog # ASR5357

Specification

Anti-MECT1 (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Rat, Pufferfish, Human, Mouse, Zebrafish, Bovine
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	This affinity-purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 80-95 kDa in size corresponding to MECT1 protein by western blotting in the appropriate cell lysate or extract. This antibody is will react with isoform 1 and 2 of MECT1.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to amino acids 19-34 of human MECT1 protein.
Preservative	0.01% (w/v) Sodium Azide

Anti-MECT1 (RABBIT) Antibody - Additional Information

Gene ID 23373

Other Names
23373

Purity

This affinity-purified antibody is directed against human MECT1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with MECT1 protein from human, mouse, rat, zebrafish, pufferfish and bovine based on 100% homology with the immunizing sequence. Reactivity against homologues from other sources is not known.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after

standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-MECT1 (RABBIT) Antibody - 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

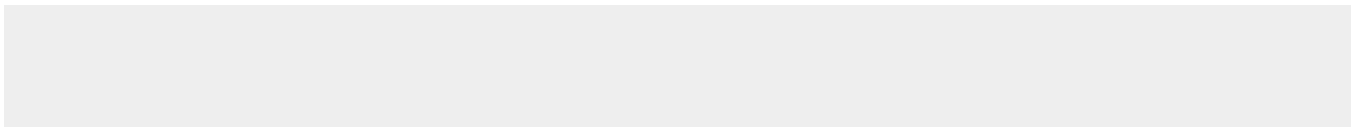
Highly expressed in adult and fetal brain. Located to specific regions such as the prefrontal cortex and cerebellum. Very low expression in other tissues such as heart, spleen, lung, skeletal muscle, salivary gland, ovary and kidney.

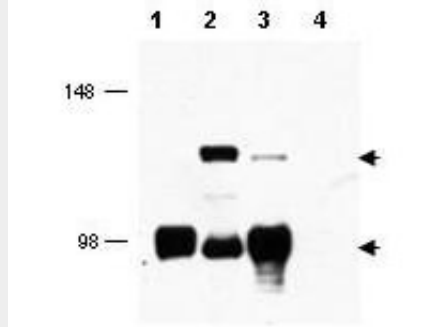
Anti-MECT1 (RABBIT) Antibody - Protocols

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](#)

Anti-MECT1 (RABBIT) Antibody - Images





Western blot using Rockland's affinity purified anti-MECT1 antibody shows detection of endogenous MECT1 (lower arrowhead) and MECT1-MAML2 fusion protein (top arrowhead) in cell lysates. Lane 1 contains lysate from cells expressing MECT1 only. Lane 2 contains lysate from cells transfected with fusion protein. Lane 3 contains lysate from cells strongly expressing MECT1 and weakly expressing the fusion protein. Lane 4 contains lysate from control cells. After SDS-PAGE and transfer, the membrane was probed with the primary antibody diluted to 1:1,000. Personal Communication, Frederick Kaye, CCR-NCI, Bethesda, MD.

Anti-MECT1 (RABBIT) Antibody - Background

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer, Immunology and Nuclear Signaling research. MECT1 (also known as Mucoepidermoid Carcinoma Translocated 1) is a nuclear protein that functions as a transcriptional coactivator for CREB1, which activates transcription through both consensus and variant cAMP response element (CRE) sites. It acts as a coactivator, in the SIK/TORC signaling pathway, being active when dephosphorylated and acts independently of CREB1 Ser-133 phosphorylation. MECT1 enhances the interaction of CREB1 with TAF4. It regulates the expression of specific CREB-activated genes such as the steroidogenic gene, StAR. Mect1 is a potent coactivator of PGC1alpha and inducer of mitochondrial biogenesis in muscle cells. MECT1 is also a coactivator for TAX activation of the human T-cell leukemia virus type 1 (HTLV-1) long terminal repeats (LTR). In the hippocampus, it is involved in late-phase long-term potentiation (L-LTP) maintenance at the Schaffer collateral-CA1 synapses. MECT1 may be required for dendritic growth of developing cortical neurons (By similarity). In concert with SIK1, MECT1 regulates the light-induced entrainment of the circadian clock. In response to light stimulus, it coactivates the CREB-mediated transcription of PER1 which plays an important role in the photic entrainment of the circadian clock. Therefore, it has been found to be important for energy balance and reproduction. Anti-MECT1 (CRTC1) Antibody is useful for researchers interested in glucose energy metabolism, circadian rhythms, and hormone research.