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CRTC3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1521a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	Q6UUV7
Reactivity	Human, Monkey
Host	Mouse
Clonality	Monoclonal
Clone Names	5G9
Isotype	IgG1
Calculated MW	66959
Description	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 PPARGC1A 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) .Tissue specificity: Predominantly expressed in B and T lymphocytes. Highest levels in lung. Also expressed in brain, colon, heart, kidney, ovary, and prostate. Weak expression in liver, pancreas, muscle, small intestine, spleen and stomach.
Immunogen	Purified recombinant fragment of human CRTC3 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	64784
Other Names	CREB-regulated transcription coactivator 3, Transducer of regulated cAMP response element-binding protein 3, TORC-3, Transducer of CREB protein 3, CRTC3, TORC3
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CRTC3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CRTC3
Synonyms	TORC3
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 PPARGC1A 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).
Cellular Location	Nucleus. Cytoplasm. Note=Appears to be mainly nuclear (PubMed:15454081). Translocates to the nucleus following adenylyl cyclase or MAP kinase activation (PubMed:30611118)
Tissue Location	Predominantly expressed in B and T lymphocytes. Highest levels in lung. Also expressed in brain, colon, heart, kidney, ovary, and prostate. Weak expression in liver, pancreas, muscle, small intestine, spleen and stomach.

References

1. Mod Pathol. 2009 Dec;22(12):1575-81. 2. Genes Chromosomes Cancer. 2008 Mar;47(3):203-6.

Images

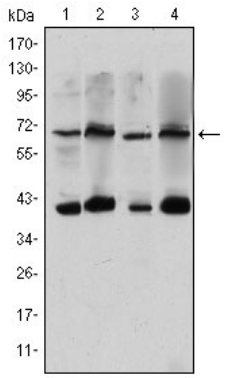


Figure 1: Western blot analysis using CRTC3 mouse mAb against Hela (1), Jurkat (2), Cos7 (3) and MCF-7 (4) cell lysate.

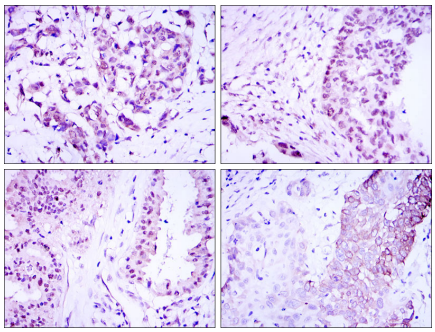
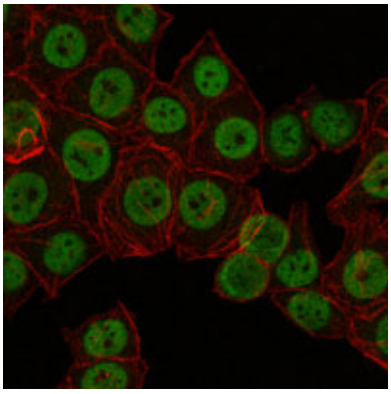


Figure 2: Immunohistochemical analysis of paraffin-embedded breast cancer (left) and ovarian cancer (right) using CRTC3 mouse mAb with DAB staining.

Figure 3: Immunohistochemical analysis of paraffin-embedded lung cancer (left) and esophagus cancer (right) using CRTC3 mouse mAb with DAB staining.

Figure 4: Immunofluorescence analysis of NTERA-2 cells using CRTC3 mouse mAb (green). Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



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