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CRTC3 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55027

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q6UUV7
Reactivity	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66959
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CRTC3/TORC3
Epitope Specificity	151-260/619
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Appears to be mainly nuclear.
SIMILARITY	Belongs to the TORC family.
SUBUNIT	Binding, as a tetramer, through its N-terminal region,with the bZIP domain of CREB1 enhances recruitment of TAF4 to thepromoter. 'Arg-314' in the bZIP domain of CREB1 is essential forthis interaction (By similarity). Interaction with HTLV-1 TAXenhances its transcriptional activity. Interacts, via theN-terminal with the ankyrin repeats of BCL3, to form a complex withCREB1 on CRE and TxRE responsive elements and represses HTLV-1LTR-mediated transcription.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	TORC3 is a 619 amino acid protein that localizes to both the cytoplasm and the nucleus and belongs to the TORC family. Expressed in lung tissue and B and T lymphocytes, as well as in colon, brain, ovary, kidney, prostate, colon and heart, TORC3 functions as a transcriptional coactivator for CREB-1, thereby regulating the expression of CREB-activated genes, and is also thought to activate the SIK/TORC signaling pathway. TORC3 exists as multiple alternatively spliced isoforms and, in addition to its role in transcriptional activation, is thought to induce mitochondrial biogenesis, specifically in muscle cells.

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

Target/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.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.