

Mouse TORC1 Monoclonal Antibody | anti-TORC1 antibody

TORC1 Monoclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320287	Mouse	Human, Mouse, Rat, Pig	Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

TORC1; Monoclonal Antibody; TORC1 Monoclonal Antibody; CREB-regulated transcription coactivator 1; CRTC1; KIAA0616; MECT1; WAMTP1; Mucoepidermoid carcinoma translocated protein 1; Transducer of regulated cAMP response element-binding protein 1; TORC-1; Transducer of CREB protein 1; anti-TORC1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat, Pig
Clonality	Monoclonal
Specificity	TORC1 Monoclonal Antibody detects endogenous levels of TORC1 protein.
Purity/Purification	Affinity purification
Form/Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-TORC1 antibody	ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	Purified recombinant human TORC1 (N-terminus) protein fragments expressed in E coli.
Modification	Unmodified/Total
Disease	A chromosomal aberration involving CRTC1 is found in mucoepidermoid carcinomas, benign Warthin tumors and clear cell hidradenomas. Translocation t(11;19)(q21;p13) with MAML2. The fusion protein consists of the N-terminus of CRTC1 joined to the C-terminus of MAML2. The reciprocal fusion protein consisting of the N-terminus of MAML2 joined to the C-terminus of CRTC1 has been detected in a small number of mucoepidermoid carcinomas.
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. 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.
PTM	Phosphorylation/dephosphorylation states of Ser-151 are required for regulating transduction of CREB activity. TORCs are inactive when phosphorylated, and active when dephosphorylated at this site. This primary site of phosphorylation, is regulated by cAMP and calcium levels and is dependent on the phosphorylation of SIKs by LKB1 (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR. Belongs to the TORC family.
Subcellular Location	Cytoplasmic when phosphorylated by SIK or AMPK and when sequestered by 14-3-3 proteins (By similarity). Translocated to the nucleus on Ser-151 dephosphorylation, instigated by a number of factors including calcium ion and cAMP levels.
Subunit	Binds, as a tetramer, through its N-terminal region, with the bZIP domain of CREB1. 'Arg-314' in the bZIP domain of CREB1 is essential for this interaction. Interaction, via its C-terminal, with TAF4, enhances recruitment of TAF4 to CREB1. Binds HTLV1 Tax.

Tissue Specificity	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.
Preparation and Storage	Store at -20 degree C/1 year

IMAGES



FCM/FACS (Flow Cytometry)
Flow cytometric analysis of K562 cells stained with TORC1 Monoclonal Antibody (red). followed by FITC-conjugated goat anti-mouse IgG. Blue line histogram represents the isotype control. normal mouse IgG.



WB (Western Blot)
Western Blot analysis using TORC1 Monoclonal Antibody against HeLa. Jurkat cell lysate.

ADDITIONAL INFORMATION

Product Categories/Family for anti-TORC1 antibody	Primary Antibodies
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NCBI AND UNIPROT INFORMATION

NCBI GI #	68565585
NCBI GeneID	23373
UniProt Accession #	Q6UUV9; O75114; Q6Y3A3; Q7LDZ2; Q8IUL3; Q8IZ34; Q8IZL1; Q8N6W3; Q96AI8; Q9H801; A6NMG5
Molecular Weight	62,530 Da
NCBI Official Full Name	CREB-regulated transcription coactivator 1
NCBI Official Synonym Full Names	CREB regulated transcription coactivator 1
NCBI Official Symbol	CRTC1
NCBI Official Synonym Symbols	MECT1; TORC1; TORC-1; WAMTP1
NCBI Protein Information	CREB-regulated transcription coactivator 1; CRTC1 {ECO:0000312 HGNC:HGNC:16062}; mucoepidermoid carcinoma translocated protein 1; transducer of regulated cAMP response element-binding protein (CREB) 1
UniProt Protein Name	CREB-regulated transcription coactivator 1
UniProt Gene Name	CRTC1
UniProt Synonym Gene Names	TORC-1; Transducer of CREB protein 1
UniProt Entry Name	CRTC1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.