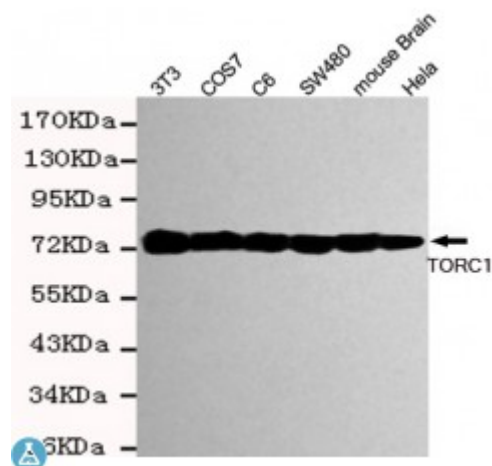


Anti-TORC1 antibody



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|---------------------------|---|
| Description | Mouse monoclonal to TORC1. |
| Model | STJ99151 |
| Host | Mouse |
| Reactivity | Human, Mouse, Rat, Simian |
| Applications | ELISA, WB |
| Immunogen | Purified recombinant human TORC1 protein fragments expressed in E.coli. |
| Gene ID | 23373 |
| Gene Symbol | CRTCL |
| Dilution range | WB 1:500-2000ELISA 1:10000-20000 |
| Specificity | This antibody detects endogenous levels of TORC1 and does not cross-react with related proteins. |
| 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. |
| Purification | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Clone ID | 4E7-C1-F9-E6 |
| Note | For Research Use Only (RUO). |
| Protein Name | 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 |

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| Molecular Weight | 78kDa |
| Clonality | Monoclonal |
| Conjugation | Unconjugated |
| Isotype | IgM |
| Formulation | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| Concentration | 1 mg/ml |
| Storage Instruction | Store at -20°C, and avoid repeat freeze-thaw cycles. |
| Database Links | HGNC:16062OMIM:607536 |
| Alternative 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 |
| 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. May be required for dendritic growth of developing cortical neurons . 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 Localization | Cytoplasm Nucleus. Cytoplasmic when phosphorylated by SIK or AMPK and when sequestered by 14-3-3 proteins . Translocated to the nucleus on Ser-151 dephosphorylation, instigated by a number of factors including calcium ion and cAMP levels . Light stimulation triggers a nuclear accumulation in the suprachiasmatic nucleus (SCN) of the brain . |
| Post-translational Modifications | 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 mediated by SIKs (SIK1 and SIK2), is regulated by cAMP and calcium levels and is dependent on the phosphorylation of SIKs by LKB1 . |