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Rabbit Anti-TORC1/CRTC1/Cy5 Conjugated antibody

SL3588R-Cy5

Product Name	Anti-TORC1/CRTC1/Cy5
Chinese Name	Cy5 标记的环腺苷酸应答元件 Binding protein 转录共激活因子 TORC1 抗体
Alias	CREB regulated transcription coactivator 1; CRTC1; KIAA0616; MECT 1; Mucoepidermoid carcinoma translocated protein 1; also known as MucoEpidermoid Carcinoma Translocated 1; TORC1; Transducer of CREB protein 1; Transducer of regulated cAMP response element binding protein 1; WAMTP1; MECT1; TORC1; TORC-1; WAMTP1; CRTC1_HUMAN.
Research Area	Tumour immunology Signal transduction Apoptosis transcriptional regulatory factor Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Rat(predicted:Mouse,Chicken,Dog,Cow)
Applications	Flow-Cyt=2μg /Test,IF=1:100-500,ICC/IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	67kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human TORC1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:**

which activates transcription through both consensus and variant cAMP response element (CRE) sites. MECT1 does not appear to modulate CREB1 DNA-binding activity but enhances the interaction of CREB1 with TAF4/TAFII-130. MECT1 translocates with MAML2 (MasterMind-Like Protein 2) to yield a fusion oncogene: t(11;19) (q21;p13). This translocation occurs in mucoepidermoid carcinomas, benign Warthin tumors and clear cell hidradenomas. The novel fusion product that results disrupts the Notch signaling pathway. The fusion protein consists of the N-terminus of MECT1 joined to the C-terminus of MAML2. The reciprocal fusion protein consisting of the N-terminus of MAML2 joined to the C-terminus of MECT1 has been detected in a small number of mucoepidermoid carcinomas. Multiple isoforms have been reported for the MECT1 protein.

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 (By similarity).

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.

Subcellular Location:
Cytoplasm. Nucleus. Note=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.

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.

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 (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR

DISEASE:
Note=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.

Similarity:
Belongs to the TORC family.

Database links:

Entrez Gene: 23373 Human

Entrez Gene: 382056 Mouse

Entrez Gene: 684527 Rat

Omim: 607536 Human

SwissProt: Q6UUV9 Human

SwissProt: Q68ED7 Mouse

SwissProt: Q157S1 Rat

Unigene: 371096 Human

Unigene: 428214 Human

Unigene: 227767 Mouse

Unigene: 208248 Rat

Important Note:
This product as supplied is intended for research use only, not for use in

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human, therapeutic or diagnostic applications.