Immunoway
Best Tools for immunology Research

TORC2 Monoclonal Antibody

Catalog No :	YM0625
Reactivity :	Human;Monkey
Applications :	WB;IHC;IF;FCM;ELISA
Target :	TORC2
Fields :	>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Glucagon signaling pathway;>>Insulin resistance;>>Human T-cell leukemia virus 1 infection
Gene Name :	CRTC2
Protein Name :	CREB-regulated transcription coactivator 2
Human Gene Id :	200186
Human Swiss Prot No :	Q53ET0
Mouse Swiss Prot No :	Q3U182
Immunogen :	Purified recombinant fragment of human TORC2 expressed in E. Coli.
Specificity :	TORC2 Monoclonal Antibody detects endogenous levels of TORC2 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	73kD

Cell Pathway : PI3K/Akt

P References :

1. Mol Syst Biol. 2007;3:89.
2. Nature. 2007 Sep 20;449(7160):366-9.
3. J Biol Chem. 2009 Mar 20;284(12):8033-41.

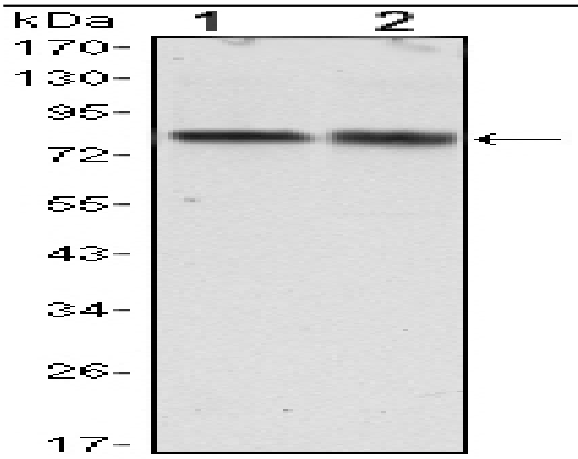
Background : This gene encodes a member of the transducers of regulated cAMP response element-binding protein activity family of transcription coactivators. These proteins promote the transcription of genes targeted by the cAMP response element-binding protein, and therefore play an important role in many cellular processes. Under basal conditions the encoded protein is phosphorylated by AMP-activated protein kinase or the salt-inducible kinases and is sequestered in the cytoplasm. Upon activation by elevated cAMP or calcium, the encoded protein translocates to the nucleus and increases target gene expression. Single nucleotide polymorphisms in this gene may increase the risk of type 2 diabetes. A pseudogene of this gene is located on the long arm of chromosome 5. [provided by RefSeq, Dec 2010],

Function : 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 gluconeogenesis as a component of the LKB1/AMPK/TORC2 signaling pathway. Regulates the expression of specific 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).,polymorphism:Variant Cys-379, under a dominant model, linked to a recessive mutation in LKB1, may be asssociated with susceptibility to type II or non-insulin-dependent diabetes mellitus (

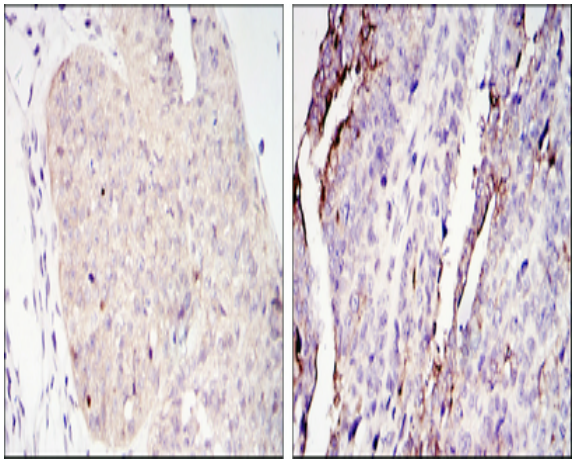
Subcellular Location : Cytoplasm . Nucleus . Translocated from the nucleus to the cytoplasm on interaction of the phosphorylated form with 14-3-3 protein (PubMed:15454081). In response to cAMP levels and glucagon, relocated to the nucleus (PubMed:15454081). .

Expression : Most abundantly expressed in the thymus. Present in both B and T-lymphocytes. Highly expressed in HEK293T cells and in insulinomas. High levels also in spleen, ovary, muscle and lung, with highest levels in muscle. Lower levels found in brain, colon, heart, kidney, prostate, small intestine and stomach. Weak expression in liver and pancreas.

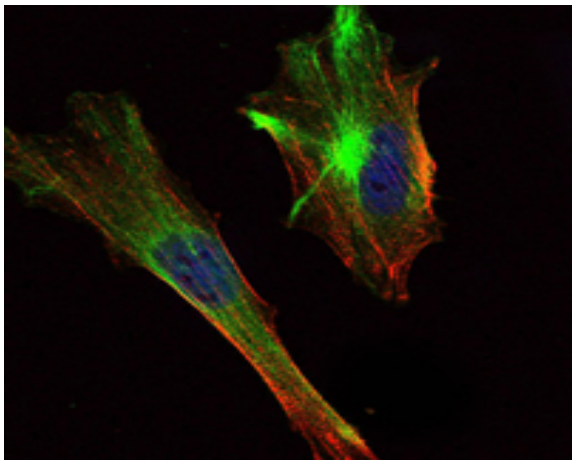
Products Images



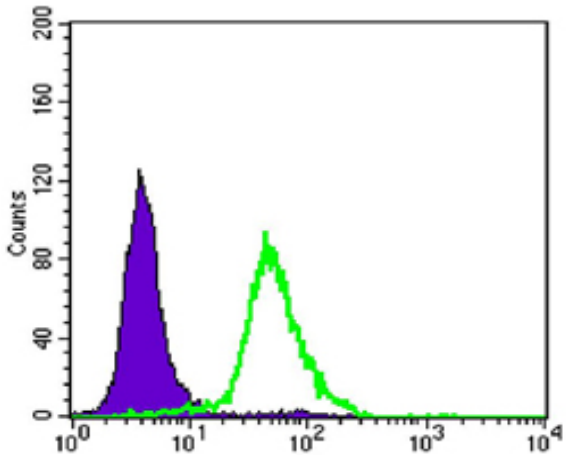
Western Blot analysis using TORC2 Monoclonal Antibody against HeLa (1) and HEK293 (2) cell lysate.



Immunohistochemistry analysis of paraffin-embedded ovary tumour tissues (left) and lung cancer (right) with DAB staining using TORC2 Monoclonal Antibody.



Immunofluorescence analysis of Hela cells using TORC2 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of Hela cells using TORC2 Monoclonal Antibody (green) and negative control (purple).