

TORC2 (Phospho-S171) polyclonal antibody

Catalog: BS64579

Host: Rabbit

Reactivity: Human, Mouse, Rat

Background:

Glucose homeostasis is regulated by hormones and cellular energy status. Elevations of blood glucose during feeding stimulate insulin release from pancreatic β -cells through a glucose sensing pathway. Feeding also stimulates release of gut hormones such as glucagon-like peptide-1 (GLP-1), which further induces insulin release, inhibits glucagon release and promotes β -cell viability. CREB-dependent transcription likely plays a role in both glucose sensing and GLP-1 signaling. The protein CRTC2 (CREB-regulated transcription coactivator 2)/TORC2 (transducer of regulated CREB activity 2) functions as a CREB co-activator and is implicated in mediating the effects of these two pathways. In quiescent cells, CRTC2/TORC2 is phosphorylated at Ser171 and becomes sequestered in the cytoplasm via an interaction with 14-3-3 proteins. Glucose and gut hormones lead to the dephosphorylation of CRTC2/TORC2 and its dissociation from 14-3-3 proteins. Dephosphorylated CRTC2/TORC2 enters the nucleus to promote CREB-dependent transcription. CRTC2/TORC2 plays a key role in the regulation of hepatic gluconeogenic gene transcription in response to hormonal and energy signals during fasting. CRTC2/TORC2-related proteins CRTC1/TORC1 and CRTC3/TORC3 also act as CREB co-activators. CRTC1/TORC1, CRTC2/TORC2 and CRTC3/TORC3 associate with the HTLV Tax protein to promote Tax-dependent transcription of HTLV-1 long terminal repeats. CRTC1/TORC1 is highly phosphorylated at Ser151 in mouse hypothalamic cells under basal conditions. When these cells are exposed to cAMP or a calcium activator, CRTC1/TORC1 is dephosphorylated and translocates into the nucleus. CRTC1/TORC1 is essential for energy balance and fertility.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide,

50% glycerol, pH7.2

Molecular Weight:

~ 87, 73 kDa

Swiss-Prot:

Q53ET0

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB:1:500~1:1000

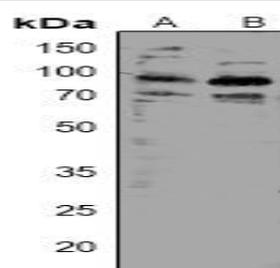
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

Specificity:

TORC2 (Phospho-S171) polyclonal antibody detects endogenous levels of TORC2 protein only when phosphorylated at Ser171.

DATA:



Western blot (WB) analysis of TORC2 (Phospho-S171) polyclonal antibody at 1:500 dilution

LaneA:Hela whole cell lysate

LaneB:HEK293T whole cell lysate

Note:

For research use only, not for use in diagnostic procedure.

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