



From Biology to Discovery™

CRTC2 (5B10) Antibody

Subcategory: Mouse Monoclonal Antibody

Cat. No.: 253079

Unit: 0.1 ml

Description:

CRTC2 (CREB-regulated transcription coactivator 2, Torc2) is a CREB coactivator, regulating glucose homeostasis. 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. Torc2 is implicated in mediating the effects of these two pathways. In quiescent cells, 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 Torc2 and its dissociation from 14-3-3 proteins. Dephosphorylated Torc2 enters the nucleus to promote CREB-dependent transcription. Torc2 plays a key role in the regulation of hepatic gluconeogenic gene transcription in response to hormonal and energy signals during fasting. Torc2 is 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.

Isotype: Mouse IgG1

Applications: WB, IHC, IF

Species Reactivity: H, Mk

Format: Each vial contains 0.1 ml ascitic fluid with 0.03% sodium azide.

Alternate Names: CREB-regulated transcription coactivator 2; Transducer of regulated cAMP response element-binding protein 2; TORC-2; Transducer of CREB protein 2 TORC2; CRTC2;

Accession No.: Q53ET0

Antigen: Purified recombinant fragment of human CRTC2 expressed in E. coli.

Application Notes: WB: 1:500-1:2000; IF: 1:200-1:1000; IHC: 1:200-1:1000;

Storage: Store at 4°C for short term use only. Store at -20°C for storage over 1 month. Product is guaranteed 6 months from the date of shipment.

For research use only, not for diagnostic or therapeutic procedures.