Product Name: CREB Regulated Transcription Coactivator 2 Rabbit Monoclonal Antibody
Catalog #: AMRe03235

Summary

Production Name	CREB Regulated Transcription Coactivator 2 Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal antibody
Host	Rabbit
Application	WB,IHC-P,IP
Reactivity	Human

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Purification	Affinity Purification

Immunogen

Gene Name	CRTC2
Alternative Names	TORC2; TORC-2
Gene ID	200186
SwissProt ID	Q53ET0.

Application

Dilution Ratio	WB: 1:500-1:1000 IHC: 1:50-1:100 IP: 1:20
Molecular Weight	Calculated MW: 73 kDa; Observed MW: 80 kDa

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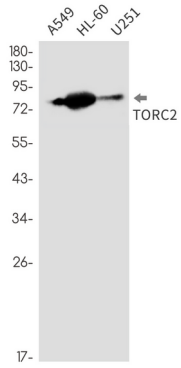
Background

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 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, 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.Tissue specificity: 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 .

Research Area

Signal Transduction

Image Data



Western blot analysis of TORC2 in A549, HL-60, U251 lysates using CREB Regulated Transcription Coactivator 2 antibody.

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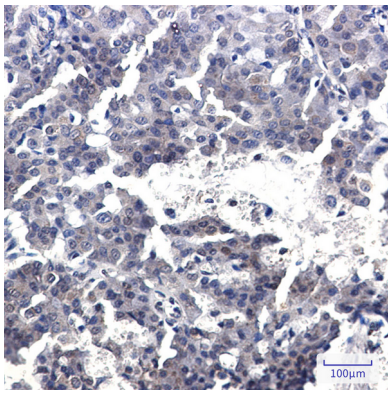

Immunohistochemistry analysis of paraffin-embedded Human breast cancer using TORC2 antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

Note

For research use only.