

## CREB REGULATED TRANSCRIPTION COACTIVATOR 2 RABBIT MAB

**Cat.#:** N263583

**Product Name:** Anti-CREB Regulated Transcription Coactivator 2 Rabbit Monoclonal Antibody

**Synonyms:** TORC2; TORC-2

**UNIPROT ID:** Q53ET0

**Background:** Glucose homeostasis is regulated by hormones and cellular energy status. Elevations of blood glucose during feeding stimulate insulin release from pancreatic  $\beta$ -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  $\beta$ -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.

**Immunogen:** A synthetic peptide of human TORC2

**Applications:** WB, IHC-P, IP

**Recommended Dilutions:** WB: 1/500-1/1000 IHC: 1/50-1/100 IP: 1/20

**Host Species:** Rabbit

**Clonality:** Rabbit Monoclonal

**Clone ID:** R08-5F2

**MW:** Calculated MW: 73 kDa; Observed MW: 80 kDa

**Isotype:** IgG

**Purification:** Affinity Purified

**Species Reactivity:** Human

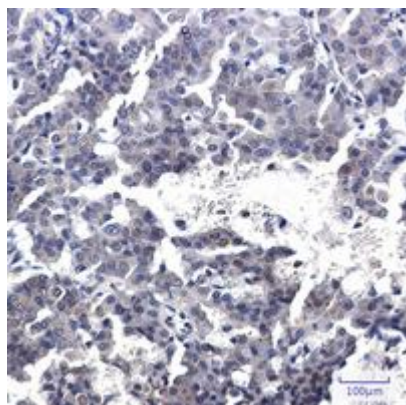
**Conjugation:** Unconjugated

**Modification:** Unmodified

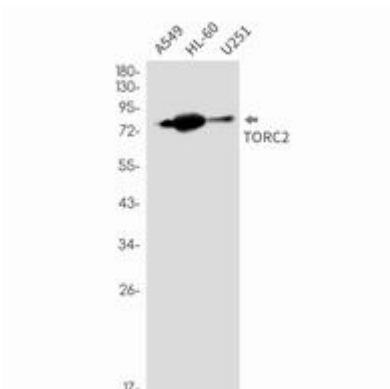
**Constituents:** PBS (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), pH 7.3 containing 50% glycerol, 0.5% BSA and 0.02% sodium azide

**Research Areas:** Signal Transduction

**Storage & Shipping:** Store at -20°C. Avoid repeated freezing and thawing



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.



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