

# TORC2 (F-4): sc-271912



The Power to Question

## BACKGROUND

The TORC (transducer of regulated cAMP response element-binding) proteins, TORC1 and TORC2, are potent CREB co-activators that are exported from the nucleus in a CRM1-dependent manner. The translocation of TORC proteins is a conserved step in the activation of CRE-mediated gene expression induced by cAMP. TORC1 and TORC2 operate via phosphorylation-dependent interactions.

## CHROMOSOMAL LOCATION

Genetic locus: CRTC2 (human) mapping to 1q21.3; Crtc2 (mouse) mapping to 3 F1.

## SOURCE

TORC2 (F-4) is a mouse monoclonal antibody raised against a peptide mapping near the C-terminus of TORC2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-271912 X, 200 µg/0.1 ml.

TORC2 (F-4) is available conjugated to agarose (sc-271912 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271912 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271912 PE), fluorescein (sc-271912 FITC), Alexa Fluor® 488 (sc-271912 AF488), Alexa Fluor® 546 (sc-271912 AF546), Alexa Fluor® 594 (sc-271912 AF594) or Alexa Fluor® 647 (sc-271912 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271912 AF680) or Alexa Fluor® 790 (sc-271912 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

TORC2 (F-4) is recommended for detection of TORC2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TORC2 siRNA (h): sc-45832, TORC2 siRNA (m): sc-45833, TORC2 shRNA Plasmid (h): sc-45832-SH, TORC2 shRNA Plasmid (m): sc-45833-SH, TORC2 shRNA (h) Lentiviral Particles: sc-45832-V and TORC2 shRNA (m) Lentiviral Particles: sc-45833-V.

TORC2 (F-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

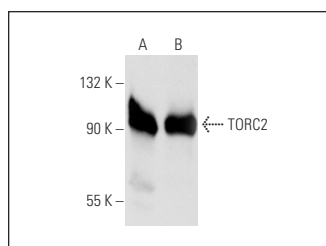
Molecular Weight of TORC2: 87 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Jurkat nuclear extract: sc-2132 or JAR cell lysate: sc-2276.

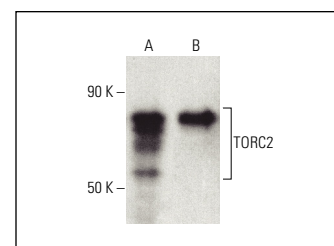
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



TORC2 (F-4): sc-271912. Western blot analysis of TORC2 expression in Jurkat nuclear extract (A) and JAR whole cell lysate (B).



TORC2 (F-4) HRP: sc-271912 HRP. Direct western blot analysis of TORC2 expression in HL-60 (A) and A-431 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Seok, S., et al. 2014. Transcriptional regulation of autophagy by an FXR-CREB axis. *Nature* 516: 108-111.
- Woo, J. and Kang, S. 2016. Diet change and exercise enhance protein expression of CREB, CRTC 2 and lipolytic enzymes in adipocytes of obese mice. *Lipids Health Dis.* 15: 147.
- Chen, X., et al. 2020. Adropin regulates hepatic glucose production via PP2A/AMPK pathway in Insulin-resistant hepatocytes. *FASEB J.* 34: 10056-10072.
- Qiao, A., et al. 2021. Sam68 promotes hepatic gluconeogenesis via CRTC2. *Nat. Commun.* 12: 3340.
- Ji, Y.X., et al. 2021. A kinome screen reveals that Nemo-like kinase is a key suppressor of hepatic gluconeogenesis. *Cell Metab.* 33: 1171-1186.e9.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.