SANTA CRUZ BIOTECHNOLOGY, INC.

TORC1 (N-14): sc-46270

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The TORC (transducer of regulated cAMP response element-binding) proteins, TORC1 and TORC2, are potent CREB coactivators 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.

REFERENCES

1. Conkright, M.D., Canettieri, G., Screaton, R., Guzman, E., Miraglia, L., Hogenesch, J.B. and Montminy, M. 2003. TORCs: transducers of regulated CREB activity. Mol. Cell 12: 413-423.
2. Iourgenko, V., Zhang, W., Mickanin, C., Daly, I., Jiang, C., Hexham, J.M., Orth, A.P., Miraglia, L., Meltzer, J., Garza, D., Chirn, G.W., McWhinnie, E., Cohen, D., Skelton, J., Terry, R., Yu, Y., Bodian, D., Buxton, F.P., et al. 2003. Identification of a family of cAMP response element-binding protein coactivators by genome-scale functional analysis in mammalian cells. Proc. Natl. Acad. Sci. USA 100: 12147-12152.
3. Bittinger, M.A., McWhinnie, E., Meltzer, J., Iourgenko, V., Latario, B., Liu, X., Chen, C.H., Song, C., Garza, D. and Labow, M. 2004. Activation of cAMP response element-mediated gene expression by regulated nuclear transport of TORC proteins. Curr. Biol. 14: 2156-2161.
4. Screaton, R.A., Conkright, M.D., Katoh, Y., Best, J.L., Canettieri, G., Jeffries, S., Guzman, E., Niessen, S., Yates, J.R., 3rd, Takemori, H., Okamoto, M. and Montminy, M. 2004. The CREB coactivator TORC2 functions as a calcium- and cAMP-sensitive coincidence detector. Cell 119: 61-74.

CHROMOSOMAL LOCATION

Genetic locus: CRTC1 (human) mapping to 19p13.11; Crtc1 (mouse) mapping to 8 B3.3.

SOURCE

TORC1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TORC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46270 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-46270 X, 200 µg/0.1 ml.

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.

APPLICATIONS

TORC1 (N-14) is recommended for detection of TORC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

TORC1 (N-14) is also recommended for detection of TORC1 in additional species, including canine, bovine and porcine.

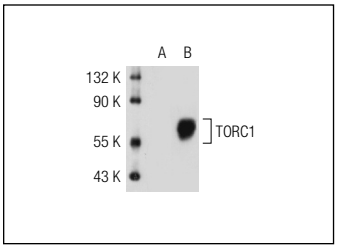
Suitable for use as control antibody for TORC1 siRNA (h): sc-45600, TORC1 siRNA (m): sc-45601, TORC1 shRNA Plasmid (h): sc-45600-SH, TORC1 shRNA Plasmid (m): sc-45601-SH, TORC1 shRNA (h) Lentiviral Particles: sc-45600-V and TORC1 shRNA (m) Lentiviral Particles: sc-45601-V.

TORC1 (N-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

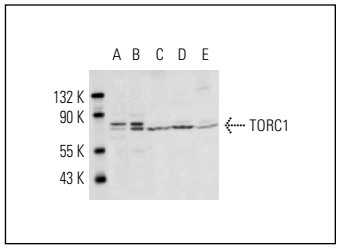
Molecular Weight of TORC1: 67 kDa.

Positive Controls: TORC1 (h2): 293T Lysate: sc-115586, SW480 nuclear extract: sc-2155 or Jurkat nuclear extract: sc-2132.

DATA



TORC1 (N-14): sc-46270. Western blot analysis of TORC1 expression in non-transfected: sc-117752 (**A**) and human TORC1 transfected: sc-115586 (**B**) 293T whole cell lysates.



TORC1 (N-14): sc-46270. Western blot analysis of TORC1 expression in HeLa (**A**), SW480 (**B**), A-431 (**C**), Jurkat (**D**) and RAW 264.7 (**E**) nuclear extracts.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **TORC1 (A-1): sc-271333** or **TORC1 (H-6): sc-365010**, our highly recommended monoclonal alternatives to TORC1 (N-14).