

TORC1 (B-12): sc-390881

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., Srean, 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., Mckanin, 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. Srean, 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.
5. Behboudi, A., Winnes, M., Gorunova, L., van den Oord, J.J., Mertens, F., Enlund, F. and Stenman, G. 2005. Clear cell hidradenoma of the skin—a third tumor type with a t(11;19)-associated TORC1-MAML2 gene fusion. *Genes Chromosomes Cancer* 43: 202-205.

CHROMOSOMAL LOCATION

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

SOURCE

TORC1 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 613-624 near the C-terminus of TORC1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-390881 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-390881 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

TORC1 (B-12) is recommended for detection of TORC1 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).

TORC1 (B-12) is also recommended for detection of TORC1 in additional species, including equine, canine, bovine, porcine and avian.

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 (B-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TORC1: 67 kDa.

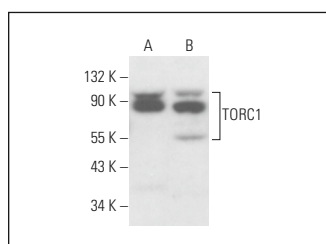
Positive Controls: TORC1 (h): 293T Lysate: sc-114714, NIH/3T3 whole cell lysate: sc-2210 or PC-12 cell lysate: sc-2250.

RECOMMENDED SUPPORT REAGENTS

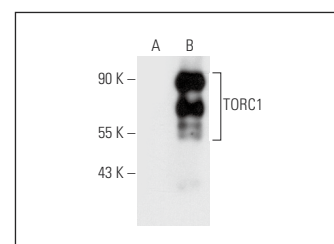
To ensure optimal results, the following support reagents are recommended:

- 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



TORC1 (B-12): sc-390881. Western blot analysis of TORC1 expression in NIH/3T3 (A) and PC-12 (B) whole cell lysates.



TORC1 (B-12): sc-390881. Western blot analysis of TORC1 expression in non-transfected: sc-117752 (A) and human TORC1 transfected: sc-114714 (B) 293T whole cell lysates.

RESEARCH USE

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