

# TRBP2 (C-18): sc-27612

## BACKGROUND

TRBP2, also known as TARBP2 (*trans*-activation-responsive (HIV-1) RNA binding protein 2), TRBP1 or TRBP, is a nuclear protein that contains three DRBM (double-stranded RNA-binding) domains. TRBP binds between the bulge and the loop of the HIV-1 TAR RNA regulatory element and activates HIV-1 gene expression in synergy with the viral Tat protein. The third DRBM motif in the C-terminus of human TRBP2 can interact with and inhibit PKR activity, thereby increasing HIV-1 long terminal repeat (LTR) expression. In addition, TRBP2 functions as a component of a Dicer-containing complex and associates with the catalytic subunit of the RNA-induced silencing complex (RISC), namely eIF2C2. TRBP2 is essential for Dicer stability and the proper assembly of RISC. This suggests that TRBP2, in association with Dicer, plays an important role in the processing of miRNAs (microRNAs).

## REFERENCES

1. Gatignol, A., et al. 1991. Characterization of a human TAR RNA-binding protein that activates the HIV-1 LTR. *Science* 251: 1597-1600.
2. Zokak, C.A., et al. 1995. Genetic mapping in human and mouse of the locus encoding TRBP, a protein that binds the TAR region of the human immunodeficiency virus (HIV-1). *Genomics* 25: 66-72.
3. Gatignol, A., et al. 1996. Sequential steps in Tat *trans*-activation of HIV-1 mediated through cellular DNA, RNA, and protein binding factors. *Gene Expr.* 5: 217-228.
4. Braun, R.E. 2000. Temporal control of protein synthesis during spermatogenesis. *Int. J. Androl.* 2: 92-94.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605053. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Dorin, D., et al. 2003. The TAR RNA-binding protein, TRBP, stimulates the expression of TAR-containing RNAs *in vitro* and *in vivo* independently of its ability to inhibit the dsRNA-dependent kinase PKR. *J. Biol. Chem.* 278: 4440-4448.

## CHROMOSOMAL LOCATION

Genetic locus: TARBP2 (human) mapping to 12q13.13; Tarbp2 (mouse) mapping to 15 F3.

## SOURCE

TRBP2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TAR 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-27612 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

TRBP2 (C-18) is recommended for detection of TRBP2 of human and, to a lesser extent, mouse and rat 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). TRBP2 (C-18) is also recommended for detection of TRBP2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TRBP2 siRNA (h): sc-106846, TRBP2 siRNA (m): sc-154622, TRBP2 shRNA Plasmid (h): sc-106846-SH, TRBP2 shRNA Plasmid (m): sc-154622-SH, TRBP2 shRNA (h) Lentiviral Particles: sc-106846-V and TRBP2 shRNA (m) Lentiviral Particles: sc-154622-V.

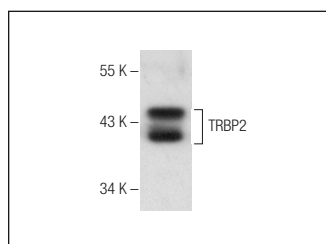
Molecular Weight of TRBP2: 45 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TRBP2 (C-18): sc-27612. Western blot analysis of TRBP2 expression in MCF7 whole cell lysate.

## STORAGE

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

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Try **TRBP2 (D-5): sc-514124**, our highly recommended monoclonal alternative to TRBP2 (C-18).