

TRAP100 (C-16): sc-5338



The Power to Question

BACKGROUND

In mammalian cells, transcription is regulated in part by high molecular weight coactivating complexes that mediate signaling between transcriptional activators and initiation factors. These complexes include the thyroid hormone receptor-associated protein (TRAP) complex, which interacts with thyroid receptors (TR), vitamin D receptors and other steroid receptors to facilitate hormone induced transcriptional activation. The TRAP complex consists of numerous proteins ranging in size, including TRAP95, TRAP100, TRAP150, TRAP220 and TRAP230, that are characterized by the presence of a nuclear receptor recognition motif, which mediates the ligand-dependent binding of TRAP proteins to the nuclear receptors. TRAP220 and TRAP100 are widely expressed and most abundantly detected in skeletal muscle, heart and placenta. TRAP95, TRAP150 and TRAP230 facilitate TR-induced transcription by associating with an additional transcriptional coactivating complex SMCC (SRB and MED protein cofactor complex), which consists of various subunits that share homology with several components of the yeast transcriptional mediator complexes.

REFERENCES

1. Yuan, C.X., et al. 1998. The TRAP220 component of a thyroid hormone receptor-associated protein (TRAP) coactivator complex interacts directly with nuclear receptors in a ligand-dependent fashion. *Proc. Natl. Acad. Sci. USA* 95: 7939-7944.
2. Jiang, Y.W., et al. 1998. Mammalian mediator of transcriptional regulation and its possible role as an end-point of signal transduction pathways. *Proc. Natl. Acad. Sci. USA* 95: 8538-8543.
3. Treuter, E., et al. 1999. Competition between thyroid hormone receptor-associated protein (TRAP) 220 and transcriptional intermediary factor (TIF) 2 for binding to nuclear receptors. Implications for the recruitment of TRAP and p160 coactivator complexes. *J. Biol. Chem.* 274: 6667-6677.
4. Kumar, R. and Thompson, E.B. 1999. The structure of the nuclear hormone receptors. *Steroids* 64: 310-319.
5. Zhang, J. and Fondell, J.D. 1999. Identification of mouse TRAP100: a transcriptional coregulatory factor for thyroid hormone and vitamin D receptors. *Mol. Endocrinol.* 13: 1130-1140.
6. Gu, W., et al. 1999. A novel human SRB/MED-containing cofactor complex, SMCC, involved in transcription regulation. *Mol. Cell* 3: 97-108.

CHROMOSOMAL LOCATION

Genetic locus: MED24 (human) mapping to 17q21.1; Med24 (mouse) mapping to 11 D.

SOURCE

TRAP100 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TRAP100 of human origin.

STORAGE

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

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-5338 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-5338 X, 200 µg/0.1 ml.

APPLICATIONS

TRAP100 (C-16) is recommended for detection of TRAP100 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TRAP100 (C-16) is also recommended for detection of TRAP100 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TRAP100 siRNA (h): sc-38589, TRAP100 siRNA (m): sc-38590, TRAP100 shRNA Plasmid (h): sc-38589-SH, TRAP100 shRNA Plasmid (m): sc-38590-SH, TRAP100 shRNA (h) Lentiviral Particles: sc-38589-V and TRAP100 shRNA (m) Lentiviral Particles: sc-38590-V.

TRAP100 (C-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TRAP100: 100 kDa.

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) 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.

SELECT PRODUCT CITATIONS

1. Gwack, Y., et al. 2003. Principal role of TRAP/mediator and SWI/SNF complexes in Kaposi's sarcoma-associated herpesvirus RTA-mediated lytic reactivation. *Mol. Cell. Biol.* 23: 2055-2067.
2. Rovnak, J., et al. 2005. An activation domain within the walleye dermal sarcoma virus retroviral cyclin protein is essential for inhibition of the viral promoter. *Virology* 342: 240-251.
3. Esposito, G., et al. 2011. Protein network study of human AF4 reveals its central role in RNA Pol II-mediated transcription and in phosphorylation-dependent regulatory mechanisms. *Biochem. J.* 438: 121-131.

RESEARCH USE

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