

TR4 (M-76): sc-9086

BACKGROUND

The human TR2 orphan receptor is a member of the steroid/thyroid hormone receptor superfamily that controls a variety of processes, including growth, differentiation and development. TR2 is known to bind to regulatory elements of the erythropoietin gene, the muscle-specific aldolase A gene and the CNTF-15 gene. In addition to TR2, a related orphan receptor, TR4 has been identified. This protein forms heterodimers with TR2, which are thought to be involved in neurogenesis and germ cell development. TR2 is known to be downregulated by both p53 and ionizing radiation, and it may play a role in linking p53 to members of the steroid receptor family.

REFERENCES

1. Chang, C., et al. 1994. Human and rat TR4 orphan receptors specify a subclass of the steroid receptor superfamily. *Proc. Natl. Acad. Sci. USA* 91: 6040-6044.
2. Lin, D.L., et al. 1996. p53 is a mediator for radiation-repressed human TR2 orphan receptor expression in MCF-7 cells, a new pathway from tumor suppressor to member of the steroid receptor superfamily. *J. Biol. Chem.* 271: 14649-14652.
3. Lee, H.J., et al. 1996. Suppression of the human erythropoietin gene expression by the TR2 orphan receptor, a member of the steroid receptor superfamily. *J. Biol. Chem.* 271: 10405-10412.

CHROMOSOMAL LOCATION

Genetic locus: Nr2c2 (mouse) mapping to 6 D1.

SOURCE

TR4 (M-76) is a rabbit polyclonal antibody raised against amino acids 41-76 of TR4 of mouse origin.

PRODUCT

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

APPLICATIONS

TR4 (M-76) is recommended for detection of TR4 of 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).

TR4 (M-76) is also recommended for detection of TR4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TR4 siRNA (m): sc-38895, TR4 shRNA Plasmid (m): sc-38895-SH and TR4 shRNA (m) Lentiviral Particles: sc-38895-V.

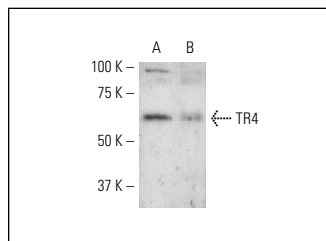
Molecular Weight of TR4: 66 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243 or F9 cell lysate: sc-2245.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TR4 (M-76): sc-9086. Western blot analysis of TR4 expression in 3T3-L1 (A) and F9 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tanabe, O., et al. 2002. An embryonic/fetal β -type globin gene repressor contains a nuclear receptor TR2/TR4 heterodimer. *EMBO J.* 21: 3434-3442.
2. Shyr, C.R., et al. 2009. Roles of testicular orphan nuclear receptors 2 and 4 in early embryonic development and embryonic stem cells. *Endocrinology* 150: 2454-2462.

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 or our catalog for detailed protocols and support products.



Try **TR4 (D-5): sc-365895**, our highly recommended monoclonal alternative to TR4 (M-76).