

# TR2 (D-4): sc-374049

## 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, designated TR4, has been identified. TR4 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. 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.
3. 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.
4. Chang, C., et al. 1997. Identification of the human aldolase A gene as the first induced target for the TR2 orphan receptor, a member of the steroid hormone receptor superfamily. *Biochem. Biophys. Res. Commun.* 235: 205-211.
5. Young, W.J., et al. 1998. A bidirectional regulation between the TR2/TR4 orphan receptors (TR2/TR4) and the ciliary neurotrophic factor (CNTF) signaling pathway. *J. Biol. Chem.* 273: 20877-20885.

## CHROMOSOMAL LOCATION

Genetic locus: NR2C1 (human) mapping to 12q22; Nr2c1 (mouse) mapping to 10 C2.

## SOURCE

TR2 (D-4) is a mouse monoclonal antibody raised against amino acids 25-110 of TR2 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TR2 (D-4) is available conjugated to agarose (sc-374049 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374049 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374049 PE), fluorescein (sc-374049 FITC), Alexa Fluor® 488 (sc-374049 AF488), Alexa Fluor® 546 (sc-374049 AF546), Alexa Fluor® 594 (sc-374049 AF594) or Alexa Fluor® 647 (sc-374049 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374049 AF680) or Alexa Fluor® 790 (sc-374049 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

TR2 (D-4) is recommended for detection of TR2 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).

Suitable for use as control antibody for TR2 siRNA (h): sc-38892, TR2 siRNA (m): sc-38893, TR2 shRNA Plasmid (h): sc-38892-SH, TR2 shRNA Plasmid (m): sc-38893-SH, TR2 shRNA (h) Lentiviral Particles: sc-38892-V and TR2 shRNA (m) Lentiviral Particles: sc-38893-V.

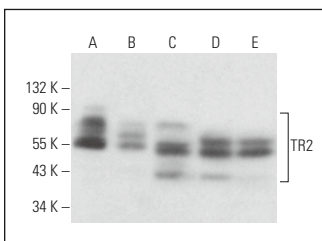
Molecular Weight of TR2: 67 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, 3T3-L1 cell lysate: sc-2243 or HeLa whole cell lysate: sc-2200.

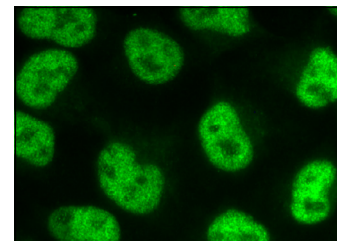
## RECOMMENDED SUPPORT REAGENTS

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



TR2 (D-4): sc-374049. Western blot analysis of TR2 expression in HeLa (A), 3T3-L1 (B), HL-60 (C), P19 (D) and PC-12 (E) whole cell lysates.



TR2 (D-4): sc-374049. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

## 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](http://www.scbt.com) for detailed protocols and support products.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA