SANTA CRUZ BIOTECHNOLOGY, INC.

TR2 (G-11): sc-365729

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 MCF7 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.
6. Lee, C.H., et al. 1998. A novel nuclear receptor heterodimerization pathway mediated by orphan receptors TR2 and TR4. J. Biol. Chem. 273: 25209-25215.

CHROMOSOMAL LOCATION

Genetic locus: Nr2c1 (mouse) mapping to 10 C2.

SOURCE

TR2 (G-11) is a mouse monoclonal antibody raised against amino acids 25-110 of TR2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TR2 (G-11) is recommended for detection of TR2 of mouse and rat 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 (m): sc-38893, TR2 shRNA Plasmid (m): sc-38893-SH and TR2 shRNA (m) Lentiviral Particles: sc-38893-V.

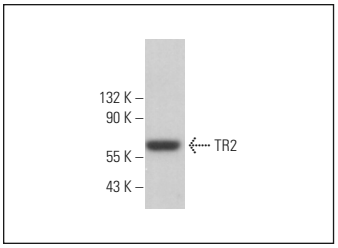
Molecular Weight of TR2: 67 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, BC_3H1 cell lysate: sc-2299 or NIH/3T3 whole cell lysate: sc-2210.

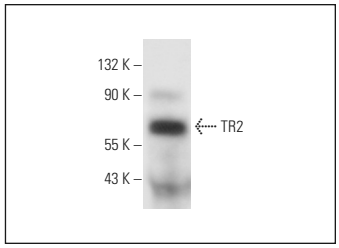
RECOMMENDED SUPPORT REAGENTS

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 (G-11): sc-365729. Western blot analysis of TR2 expression in BC_3H1 whole cell lysate. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



TR2 (G-11): sc-365729. Western blot analysis of TR2 expression in NIH/3T3 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.