SANTA CRUZ BIOTECHNOLOGY, INC.

TR2 (C-19): sc-8618

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 (human) mapping to 12q22; Nr2c1 (mouse) mapping to 10 C2.

SOURCE

TR2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TR2 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-8618 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

TR2 (C-19) is recommended for detection of TR2 of 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).

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

Molecular Weight of TR2: 67 kDa.

Positive Controls: human testis tissue.

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.

STORAGE

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

PROTOCOLS

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