

TR β 1 (S-18): sc-33313

BACKGROUND

Thyroid hormone nuclear receptors (TRs) are ligand-dependent transcription factors which regulate growth, differentiation and development and represent members of the steroid/retinoic acid superfamily. The two genes encoding TRs identified to date, TR α and TR β , have been mapped to human chromosomes 17 and 3, respectively. TRs bind to thyroid hormone response elements (TREs) with half-site binding motifs in the orientation of palindromes, direct repeats or inverted palindromes. The affinities of binding are both variable and influenced differentially by 3,5,3'-triiodo-L-thyronine (T3). Transcriptional regulation by TRs is also modulated by heterodimerization with TR nuclear accessory proteins, the most extensively characterized of which are the retinoid X receptors (RXR α , RXR β and RXR γ). To a certain extent, this activity is regulated by differential phosphorylation of TRs. The TR β isoform TR β 1 forms a complex with the PI 3-kinase p85 α subunit and plays an important role in the T3-induced activation of Akt in pancreatic β cells.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: THRB (human) mapping to 3p24.2; Thrb (mouse) mapping to 14 A2.

SOURCE

TR β 1 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TR β 1 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 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33313 P, (100 μ g 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-33313 X, 200 μ g/0.1 ml.

APPLICATIONS

TR β 1 (S-18) is recommended for detection of TR β 1 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).

Suitable for use as control antibody for TR β 1 siRNA (h): sc-38890, TR β 1 siRNA (m): sc-38891, TR β 1 shRNA Plasmid (h): sc-38890-SH, TR β 1 shRNA Plasmid (m): sc-38891-SH, TR β 1 shRNA (h) Lentiviral Particles: sc-38890-V and TR β 1 shRNA (m) Lentiviral Particles: sc-38891-V.

TR β 1 (S-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TR β 1: 55 kDa.

Positive Controls: C32 nuclear extract: sc-2136, C32 whole cell lysate: sc-2205 or SK-BR-3 nuclear extract: sc-2134.

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.

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.


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 Guaranteed

Try **TR β 1 (J51): sc-737** or **TR β 1 (J52): sc-738**, our highly recommended monoclonal alternatives to TR β 1 (S-18). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TR β 1 (J51): sc-737**.