

TR β 1 (J51): sc-737



The Power to Question

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). 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.

CHROMOSOMAL LOCATION

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

SOURCE

TR β 1 (J51) is a mouse monoclonal antibody epitope mapping at the amino terminal half of the A/B domain of TR β 1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-737 X, 200 μ g/0.1 ml.

TR β 1 (J51) is available conjugated to agarose (sc-737 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-737 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-737 PE), fluorescein (sc-737 FITC), Alexa Fluor[®] 488 (sc-737 AF488), Alexa Fluor[®] 546 (sc-737 AF546), Alexa Fluor[®] 594 (sc-737 AF594) or Alexa Fluor[®] 647 (sc-737 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-737 AF680) or Alexa Fluor[®] 790 (sc-737 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TR β 1 (J51) 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), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

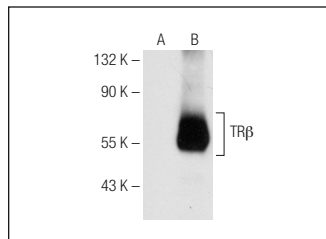
TR β 1 (J51) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TR β 1: 55 kDa.

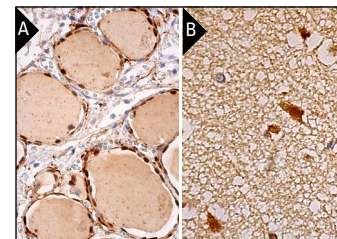
STORAGE

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

DATA



TR β 1 (J51): sc-737. Western blot analysis of TR β expression in non-transfected: sc-117752 (A) and human TR β transfected: sc-369818 (B) 293T whole cell lysates.



TR β 1 (J51): sc-737. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid tissue showing nuclear staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lateral ventricle tissue showing nuclear and cytoplasmic staining of neuronal cells and nuclear staining of glial cells (B).

SELECT PRODUCT CITATIONS

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- Mosialou, I., et al. 2010. Regulation of human apolipoprotein m gene expression by orphan and ligand-dependent nuclear receptors. *J. Biol. Chem.* 285: 30719-30730.
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RESEARCH USE

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

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