SANTA CRUZ BIOTECHNOLOGY, INC.

RORγ (H-190): sc-28559

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The nuclear orphan receptors RORα and RORγ are members of the nuclear hormone receptor superfamily. Members of this family acts by directly associating with DNA sequences known as hormone response elements (HREs) and typically bind DNA as either homo- or heterodimers. RORα and RORγ are unique in that they bind DNA as monomers. RORα has multiple isoforms that share common DNA and putative ligand-binding domains, but differ in their amino terminal domains, which are generated by alternative RNA processing. RORγ comprises a 560 amino acid protein that shares 50% amino acid identity with RORα and is most highly expressed in skeletal muscle. Although these proteins are considered "orphan receptors", due to a lack of defined ligands, experimental evidence has shown that melatonin may be the natural ligand for these nuclear receptors. The gene encoding RORα maps to chromosome 15q22.2 and the gene encoding RORγ maps to chromosome 1q21.3.

CHROMOSOMAL LOCATION

Genetic locus: RORC (human) mapping to 1q21.3; Rorc (mouse) mapping to 3 F2.1.

SOURCE

RORγ (H-190) is a rabbit polyclonal antibody raised against amino acids 131-320 mapping within an internal region of RORγ 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28559 X, 200 µg/0.1 ml.

APPLICATIONS

RORγ (H-190) is recommended for detection of RORγ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 RORγ siRNA (h): sc-38880, RORγ siRNA (m): sc-38881, RORγ shRNA Plasmid (h): sc-38880-SH, RORγ shRNA Plasmid (m): sc-38881-SH, RORγ shRNA (h) Lentiviral Particles: sc-38880-V and RORγ shRNA (m) Lentiviral Particles: sc-38881-V.

RORγ (H-190) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Moleular Weight of RORγ: 63 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810, RORγ (h5): 293T Lysate: sc-170801 or U-937 nuclear extract: sc-2156.

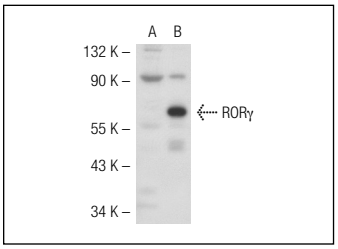
RESEARCH USE

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

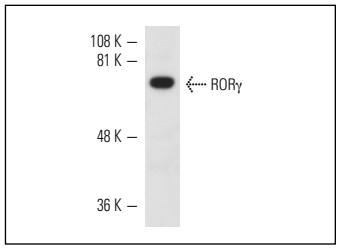
STORAGE

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

DATA



RORγ (H-190): sc-28559. Western blot analysis of RORγ expression in non-transfected: sc-117752 (**A**) and human RORγ transfected: sc-170801 (**B**) 293T whole cell lysates.



RORγ (H-190): sc-28559. Western blot analysis of RORγ expression in rat skeletal muscle tissue extract.

SELECT PRODUCT CITATIONS

1. Yang, X.O., et al. 2008. T helper 17 lineage differentiation is programmed by orphan nuclear receptors RORα and RORγ. Immunity 28: 29-39.
2. Takeda, Y., et al. 2011. Retinoic acid-related orphan receptor γ directly regulates neuronal PAS domain protein 2 transcription *in vivo*. Nucleic Acids Res. 39: 4769-4782.
3. Hod-Dvorai, R., et al. 2011. The binding activity of Mel-18 at the Il17α promoter is regulated by the integrated signals of the TCR and polarizing cytokines. Eur. J. Immunol. 41: 2424-2435.
4. Papiez, P., et al. 2011. Expression of Foxp3 and RORγ t in peripheral blood mononuclear cells in patients with laryngeal carcinoma as indicators of tumor stage—preliminary study. Otolaryngol. Pol. 65: 109-116.
5. Takeda, Y., et al. 2012. RORγ directly regulates the circadian expression of clock genes and downstream targets *in vivo*. Nucleic Acids Res. 40: 8519-8535.
6. Mühlbauer, E., et al. 2013. Differential and day-time dependent expression of nuclear receptors RORα, RORβ, RORγ and RXRα in the rodent pancreas and islet. Mol. Cell. Endocrinol. 365: 129-138.

PROTOCOLS

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