

ROR γ (27.92): sc-293150

BACKGROUND

The nuclear orphan receptors ROR α and ROR γ are members of the nuclear hormone receptor superfamily. This family acts by directly associating with DNA sequences known as hormone response elements (HREs) and typically bind DNA as either homo- or heterodimers. ROR α and ROR γ are unique in that they bind DNA as monomers. ROR α 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. ROR γ comprises a 560 amino acid protein that shares 50% amino acid identity with ROR α 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 ROR α maps to chromosome 15q22.2 and the gene encoding ROR γ maps to chromosome 1q21.3.

CHROMOSOMAL LOCATION

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

SOURCE

ROR γ (27.92) is a mouse monoclonal antibody raised against recombinant ROR γ of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ 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-293150 X, 200 μ g/0.1 ml.

STORAGE

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

APPLICATIONS

ROR γ (27.92) is recommended for detection of isoform ROR γ t (also designated isoform 2) 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ROR γ siRNA (h): sc-38880, ROR γ siRNA (m): sc-38881, ROR γ shRNA Plasmid (h): sc-38880-SH, ROR γ shRNA Plasmid (m): sc-38881-SH, ROR γ shRNA (h) Lentiviral Particles: sc-38880-V and ROR γ shRNA (m) Lentiviral Particles: sc-38881-V.

ROR γ (27.92) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

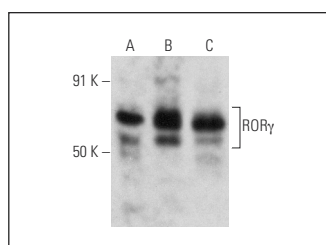
Molecular Weight of ROR γ : 63 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, CCRF-CEM cell lysate: sc-2225 or Hep G2 cell lysate: sc-2227.

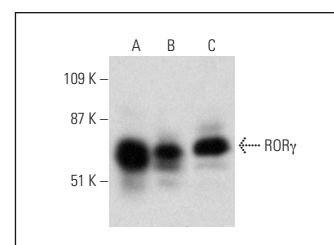
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).

DATA



ROR γ (27.92): sc-293150. Western blot analysis of ROR γ expression in A-431 (A), CCRF-CEM (B) and Hep G2 (C) whole cell lysates.



ROR γ (27.92): sc-293150. Western blot analysis of ROR γ expression in Hep G2 (A), c4 (B) and RAT2 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Wu, Q., et al. 2015. Reciprocal regulation of ROR γ t acetylation and function by p300 and HDAC1. *Sci. Rep.* 5: 16355.
- Chen, Y., et al. 2018. p300 promotes differentiation of Th17 cells via positive regulation of the nuclear transcription factor ROR γ t in acute respiratory distress syndrome. *Immunol. Lett.* 202: 8-15.
- Xiao, C., et al. 2021. Isoforskolin alleviates AECOPD by improving pulmonary function and attenuating inflammation which involves downregulation of Th17/IL-17A and NF κ B/NLRP3. *Front. Pharmacol.* 12: 721273.
- Lopez, D.V., et al. 2021. Vitamin D inhibits IL-22 production through a repressive vitamin D response element in the il22 promoter. *Front. Immunol.* 12: 715059.
- Yang, Y.Q., et al. 2022. The Chinese medicine Fufang Zhenzhu Tiaozhi capsule protects against renal injury and inflammation in mice with diabetic kidney disease. *J. Ethnopharmacol.* 292: 115165.
- Kim, E., et al. 2022. ROR activation by Nobiletin enhances antitumor efficacy via suppression of I κ B/NF κ B signaling in triple-negative breast cancer. *Cell Death Dis.* 13: 374.

RESEARCH USE

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

PROTOCOLS

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