SANTA CRUZ BIOTECHNOLOGY, INC.

RXRγ (Y-20): sc-555

BACKGROUND

Two families of retinoid receptors, RARs and RXRs, have been identified. Retinoic acid receptors (RARs) include RARα, RARβ and RARγ, each of which have a high affinity for all *trans*-retinoic acids and belong to the same class of nuclear transcription factors as thyroid hormone receptors, vitamin D_3 receptor and ecdysone receptor. The ligand-binding domains of the RARs are highly conserved and RAR isoforms are expressed in distinct patterns throughout development and in the mature organism. Members of the retinoid X receptor (RXR) family, RXRα, RXRβ and RXRγ, are activated by 9-*cis*-RA, a stereo- and photo-isomer of all *trans*-RA that is expressed *in vivo* in both liver and kidney and may represent a widely used hormone. As is true for the RAR subfamily, the RXR receptors are closely related to each other both in their DNA-binding and ligand-binding domains and are encoded by separate genes at distinct chromosomal loci.

CHROMOSOMAL LOCATION

Genetic locus: RXRG (human) mapping to 1q23.3; Rxrg (mouse) mapping to 1 H2.3.

SOURCE

RXRγ (Y-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of RXRγ of mouse 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-555 P, (100 µg 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-555 X, 200 µg/0.1 ml.

APPLICATIONS

RXRγ (Y-20) is recommended for detection of RXRγ 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RXRγ (Y-20) is also recommended for detection of RXRγ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RXRγ siRNA (h): sc-44083, RXRγ siRNA (m): sc-38879, RXRγ shRNA Plasmid (h): sc-44083-SH, RXRγ shRNA Plasmid (m): sc-38879-SH, RXRγ shRNA (h) Lentiviral Particles: sc-44083-V and RXRγ shRNA (m) Lentiviral Particles: sc-38879-V.

RXRγ (Y-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

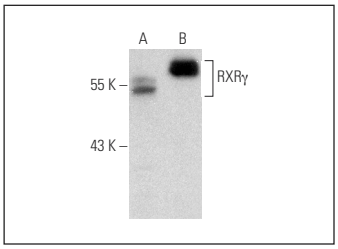
Molecular Weight of RXRγ: 50-54 kDa.

Positive Controls: RXRγ (h): 293T Lysate: sc-158943.

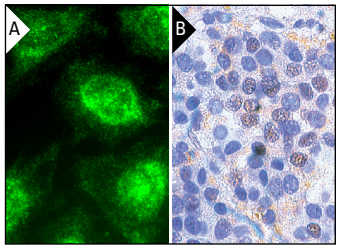
STORAGE

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

DATA



RXRγ (Y-20): sc-555. Western blot analysis of RXRγ expression in non-transfected: sc-110760 (**A**) and human RXRγ transfected: sc-158943 (**B**) 293 whole cell lysates.



RXRγ (Y-20): sc-555. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human liver tumor showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Honkakoski, P., et al. 1998. The nuclear orphan receptor CAR-retinoid X receptor heterodimer activates the phenobarbital-responsive enhancer module of the CYP2B gene. Mol. Cell. Biol. 18: 5652-5658.
2. Goumy, C., et al. 2010. Fetal skin fibroblasts: a cell model for studying the retinoid pathway in congenital diaphragmatic hernia. Birth Defects Res. Part A Clin. Mol. Teratol. 88: 195-200.
3. Lado-Abeal, J., et al. 2010. Thyroid hormone receptors are down-regulated in skeletal muscle of patients with non-thyroidal illness syndrome secondary to non-septic shock. Eur. J. Endocrinol. 163: 765-773.
4. van Neerven, S., et al. 2010. Inflammatory cytokine release of astrocytes *in vitro* is reduced by all-*trans* retinoic acid. J. Neuroimmunol. 229: 169-179.
5. de Mello Souza, C.H., et al. 2010. Immunohistochemical detection of retinoid receptors in tumors from 30 dogs diagnosed with cutaneous lymphoma. J. Vet. Intern. Med. 24: 1112-1117.
6. de Melo, J., et al. 2011. The Spalt family transcription factor Sall3 regulates the development of cone photoreceptors and retinal horizontal interneurons. Development 138: 2325-2336.

RESEARCH USE

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