SANTA CRUZ BIOTECHNOLOGY, INC.

RXRβ$_1$ (L-20): sc-556

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Retinoids are metabolites of vitamin A (retinol) and are believed to represent important signaling molecules during vertebrate development and tissue differentiation. Two families of retinoid receptors have been identified. Retinoic acid receptors (RARs), include RARα RARβ and RARγ, each of which have a high affinity for all transretinoic 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 stero- and photoisomer 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: RXRB (human) mapping to 6p21.32; Rxrb (mouse) mapping to 17 B1.

SOURCE

RXRβ$_1$ (L-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of RXRβ$_1$ 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-556 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-556 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

RXRβ$_1$ (L-20) is recommended for detection of RXRβ$_1$ 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).

RXRβ$_1$ (L-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

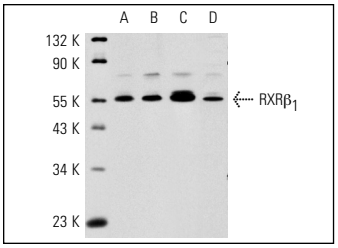
Molecular Weight of RXRβ$_1$: 54 kDa.

Positive Controls: A-431 nuclear extract: sc-2122, Y79 nuclear extract: sc-2126 or RXRβ (m2): 293T Lysate: sc-123333.

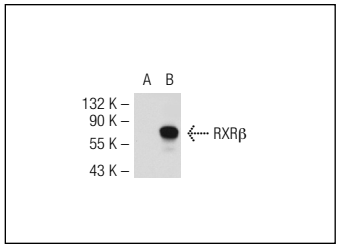
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



RXRβ$_1$ (L-20): sc-556. Western blot analysis of RXRβ$_1$ expression in A-431 (**A**), Y79 (**B**), MM-142 (**C**) and NIH/3T3 (**D**) nuclear extracts.



RXRβ$_1$ (L-20): sc-556. Western blot analysis of RXRβ expression in non-transfected: sc-117752 (**A**) and mouse RXRβ transfected: sc-123333 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Jääskeläinen, T., et al. 2003. 9-*cis* retinoic acid accelerates calcitriol-induced osteocalcin production and promotes degradation of both vitamin D receptor and retinoid X receptor in human osteoblastic cells. J. Cell. Biochem. 89: 1164-1176.
2. Krisan, A.D., et al. 2004. Resistance training enhances components of the Insulin signaling cascade in normal and high-fat-fed rodent skeletal muscle. J. Appl. Physiol. 96: 1691-1700.
3. Radwanska, K., et al. 2011. Mechanism for long-term memory formation when synaptic strengthening is impaired. Proc. Natl. Acad. Sci. USA 108: 18471-18475.

STORAGE

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