SANTA CRUZ BIOTECHNOLOGY, INC.

RXRβ (11-13): sc-742

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: RXRB (human) mapping to 6p21.32.

SOURCE

RXRβ (11-13) is a mouse monoclonal antibody raised against full length recombinant RXRβ protein of human origin expressed in a baculovirus system.

PRODUCT

Each vial contains 200 µg 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-742 X, 200 µg/0.1 ml.

RXRβ (11-13) is available conjugated to agarose (sc-742 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-742 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-742 PE), fluorescein (sc-742 FITC), Alexa Fluor® 488 (sc-742 AF488), Alexa Fluor® 546 (sc-742 AF546), Alexa Fluor® 594 (sc-742 AF594) or Alexa Fluor® 647 (sc-742 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-742 AF680) or Alexa Fluor® 790 (sc-742 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

RXRβ (11-13) is recommended for detection of RXRβ1 and RXRβ2 of 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 RXRβ siRNA (h): sc-36445, RXRβ shRNA Plasmid (h): sc-36445-SH and RXRβ shRNA (h) Lentiviral Particles: sc-36445-V.

RXRβ (11-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

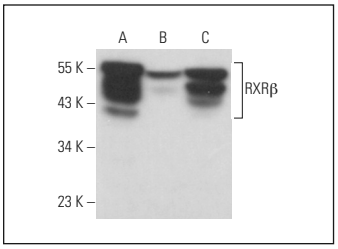
Molecular Weight of RXRβ: 50-54 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, SK-BR-3 cell lysate: sc-2218 or T-47D cell lysate: sc-2293.

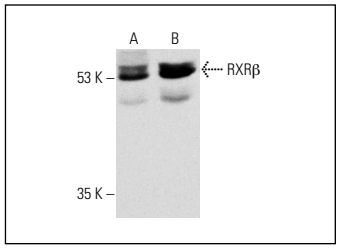
STORAGE

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

DATA



RXRβ (11-13): sc-742. Western blot analysis of RXRβ expression in SK-BR-3 (**A**), SJRH30 (**B**) and T-47D (**C**) whole cell lysates.



RXRβ (11-13): sc-742. Western blot analysis of RXRβ expression in K-562 (**A**) and SK-BR-3 (**B**) nuclear extracts.

SELECT PRODUCT CITATIONS

1. Alfaro, J.M., et al. 2003. Immunohistochemical detection of the retinoid X receptors α, β, and γ in human prostate. J. Androl. 24: 113-119.
2. Tsao, W.C., et al. 2005. Proteasome inhibitors induce peroxisome proliferator-activated receptor transactivation through RXR accumulation and a protein kinase C-dependent pathway. Exp. Cell Res. 304: 234-243.
3. Conde, I., et al. 2008. Human pregnane X receptor is expressed in breast carcinomas, potential heterodimers formation between hPXR and RXRα. BMC Cancer 8: 174.
4. Koay, D.C., et al. 2010. Anti-tumor effects of retinoids combined with trastuzumab or tamoxifen in breast cancer cells: induction of apoptosis by retinoid/trastuzumab combinations. Breast Cancer Res. 12: R62.
5. Fabricius, E.M., et al. 2011. Model examination of chemoprevention with retinoids in squamous cell carcinomas of the head and neck region and suitable biomarkers for chemoprevention. Int. J. Oncol. 39: 1083-1097.
6. Pasutto, F., et al. 2017. Pseudoexfoliation syndrome-associated genetic variants affect transcription factor binding and alternative splicing of LOXL1. Nat. Commun. 8: 15466.
7. Meseguer, S., et al. 2018. The MELAS mutation m.3243A>G promotes reactivation of fetal cardiac genes and an epithelial-mesenchymal transition-like program via dysregulation of miRNAs. Biochim. Biophys. Acta 1864: 3022-3037.
8. Berner, D., et al. 2019. The protective variant rs7173049 at LOXL1 locus impacts on retinoic acid signaling pathway in pseudoexfoliation syndrome. Hum. Mol. Genet. 28: 2531-2548.
9. Wang, G.S., et al. 2020. Expression and localization of retinoid receptors in the testis of normal and infertile men. Mol. Reprod. Dev. 87: 978-985.

RESEARCH USE

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