SANTA CRUZ BIOTECHNOLOGY, INC.

RXRα (H-10): sc-515929



BACKGROUND

Two families of retinoid receptors, RARs and RXRs, have been identified. Retinoic acid receptors (RARs) include RAR α , RAR β and RAR γ , 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 D₃ 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, RXR α , RXR β and RXR γ , 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.

REFERENCES

- 1. Ishikawa, T., et al. 1990. A functional retinoic acid receptor encoded by the gene on human chromosome 12. Mol. Endocrinol. 4: 837-844.
- Yang, N., et al. 1991. Characterization of DNA-binding and retinoic acidbinding properties of retinoic acid receptor. Proc. Natl. Acad. Sci. USA 88: 3559-3563.
- Koelle, M.R., et al. 1991. The *Drosophila* EcR gene encodes an ecdysone receptor, a new member of the steroid receptor superfamily. Cell 67: 59-77.

CHROMOSOMAL LOCATION

Genetic locus: RXRA (human) mapping to 9q34.2; Rxra (mouse) mapping to 2 A3.

SOURCE

 $RXR\alpha$ (H-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-29 at the N-terminus of $RXR\alpha$ of human origin.

PRODUCT

Each vial contains 200 μ g lgG₁ 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-515929 X, 200 μ g/0.1 ml.

RXRα (H-10) is available conjugated to agarose (sc-515929 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515929 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515929 PE), fluorescein (sc-515929 FITC), Alexa Fluor[®] 488 (sc-515929 AF488), Alexa Fluor[®] 546 (sc-515929 AF546), Alexa Fluor[®] 594 (sc-515929 AF594) or Alexa Fluor[®] 647 (sc-515929 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515929 AF680) or Alexa Fluor[®] 790 (sc-515929 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

RXR α (H-10) is recommended for detection of RXR α of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for RXR α siRNA (h): sc-36447, RXR α siRNA (m): sc-36448, RXR α shRNA Plasmid (h): sc-36447-SH, RXR α shRNA Plasmid (m): sc-36448-SH, RXR α shRNA (h) Lentiviral Particles: sc-36447-V and RXR α shRNA (m) Lentiviral Particles: sc-36448-V.

 $\text{RXR}\alpha$ (H-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RXRa: 50-54 kDa.

Positive Cintrols: RXR α (h): 293T Lysate: sc-111936, MCF7 whole cell lysate: sc-2206 or HeLa nuclear extract: sc-2120.

DATA





 $\mathsf{RXR}\alpha$ (H-10): sc-515929. Western blot analysis of $\mathsf{RXR}\alpha$ expression in non-transfected 2931: sc-117752 (**A**), human $\mathsf{RXR}\alpha$ transfected 2931: sc-111936 (**B**) and MCF7 (**C**) whole cell lysates and HeLa (**D**) and Hep G2 (**E**) nuclear extracts.

 $\text{RXR}\alpha$ (H-10): sc-515929. Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing nuclear staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

- Tsachaki, M., et al. 2020. Impact of 17β-HSD12, the 3-ketoacyl-CoA reductase of long-chain fatty acid synthesis, on breast cancer cell proliferation and migration. Cell. Mol. Life Sci. 77: 1153-1175.
- Švab, Ž., et al. 2021. High throughput miRNA screening identifies miR-574-3p hyperproductive effect in CHO cells. Biomolecules 11: 1125.
- 3. Li, Z., et al. 2022. PPAR γ phase separates with RXR α at PPREs to regulate target gene expression. Cell Discov. 8: 37.
- Lin, X.Y., et al. 2023. Retinoid X receptor agonists alleviate fibroblast activation and post-infarction cardiac remodeling via inhibition of TGF-β1/Smad pathway. Life Sci. 329: 121936.
- Kurosawa, K., et al. 2023. ncBAF enhances PXR-mediated transcriptional activation in the human and mouse liver. Biochem. Pharmacol. 215: 115733.

RESEARCH USE

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