

# RXR $\alpha$ (H-10): sc-515929

## BACKGROUND

Two families of retinoid receptors, RARs and RXRs, have been identified. Retinoic acid receptors (RARs) include RAR $\alpha$ , RAR $\beta$  and RAR $\gamma$ , 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<sub>3</sub> 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 $\alpha$ , RXR $\beta$  and RXR $\gamma$ , 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.
2. Yang, N., et al. 1991. Characterization of DNA-binding and retinoic acid-binding properties of retinoic acid receptor. *Proc. Natl. Acad. Sci. USA* 88: 3559-3563.
3. 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  $\mu$ g IgG<sub>1</sub> 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  $\mu$ g/0.1 ml.

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

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## STORAGE

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

## APPLICATIONS

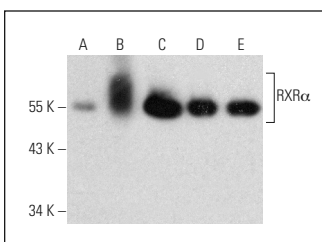
RXR $\alpha$  (H-10) is recommended for detection of RXR $\alpha$  of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 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 $\alpha$  siRNA (h): sc-36447, RXR $\alpha$  siRNA (m): sc-36448, RXR $\alpha$  shRNA Plasmid (h): sc-36447-SH, RXR $\alpha$  shRNA Plasmid (m): sc-36448-SH, RXR $\alpha$  shRNA (h) Lentiviral Particles: sc-36447-V and RXR $\alpha$  shRNA (m) Lentiviral Particles: sc-36448-V.

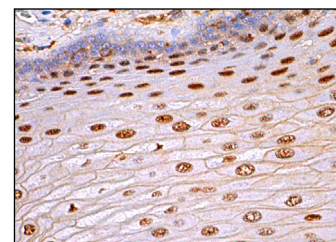
RXR $\alpha$  (H-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of RXR $\alpha$ : 50-54 kDa.

## DATA



RXR $\alpha$  (H-10): sc-515929. Western blot analysis of RXR $\alpha$  expression in non-transfected 293T: sc-117752 (A), human RXR $\alpha$  transfected 293T: sc-111936 (B) and MCF7 (C) whole cell lysates and HeLa (D) and Hep G2 (E) nuclear extracts.



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

1. Tsachaki, M., et al. 2020. Impact of 17 $\beta$ -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.
2. Apaya, M.K., et al. 2020. Deregulating the CYP2C19/epoxy-eicosatrienoic acid-associated FABP4/FABP5 signaling network as a therapeutic approach for metastatic triple-negative breast cancer. *Cancers* 12: 199.
3. Li, K., et al. 2020. Noncoding variants connect enhancer dysregulation with nuclear receptor signaling in hematopoietic malignancies. *Cancer Discov.* 10: 724-745.
4. Takemoto, S., et al. 2021. Adenosine deaminases acting on RNA modulate the expression of the human pregnane X receptor. *Drug Metab. Pharmacokinet.* 37: 100367.
5. Kamada, S., et al. 2021. Functional inhibition of cancer stemness-related protein DPP4 rescues tyrosine kinase inhibitor resistance in renal cell carcinoma. *Oncogene* 40: 3899-3913.

## RESEARCH USE

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