

RXRβ₁ (A-1): sc-376301

BACKGROUND

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 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, RXRα, RXRβ and RXRγ, are activated by 9-*cis*-RA, a stereo- 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.

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.

CHROMOSOMAL LOCATION

Genetic locus: RXRB (human) mapping to 6p21.32; Rxrb (mouse) mapping to 17 B1.

SOURCE

RXRβ₁ (A-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-31 at the N-terminus of RXRβ₁ of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-376301 X, 200 µg/0.1 ml.

RXRβ₁ (A-1) is available conjugated to agarose (sc-376301 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376301 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376301 PE), fluorescein (sc-376301 FITC), Alexa Fluor® 488 (sc-376301 AF488), Alexa Fluor® 546 (sc-376301 AF546), Alexa Fluor® 594 (sc-376301 AF594) or Alexa Fluor® 647 (sc-376301 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376301 AF680) or Alexa Fluor® 790 (sc-376301 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376301 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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

RXRβ₁ (A-1) is recommended for detection of RXRβ₁ 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RXRβ₁ siRNA (h): sc-36445, RXRβ₁ siRNA (m): sc-36446, RXRβ₁ shRNA Plasmid (h): sc-36445-SH, RXRβ₁ shRNA Plasmid (m): sc-36446-SH, RXRβ₁ shRNA (h) Lentiviral Particles: sc-36445-V and RXRβ₁ shRNA (m) Lentiviral Particles: sc-36446-V.

RXRβ₁ (A-1) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

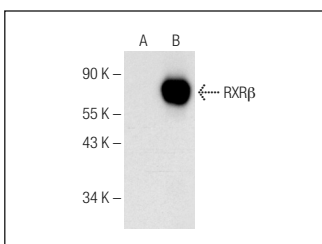
Molecular Weight of RXRβ₁: 50-54 kDa.

Positive Controls: MM-142 nuclear extract: sc-2139, NIH/3T3 nuclear extract: sc-2138 or RXRβ (m2): 293T Lysate: sc-123333.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RXRβ₁ (A-1): sc-376301. 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. Guo, J., et al. 2020. *In utero* exposure to phenanthrene induces hepatic steatosis in F1 adult female mice. *Chemosphere* 258: 127360.

RESEARCH USE

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