SANTA CRUZ BIOTECHNOLOGY, INC.

LXRβ (Y-16): sc-34341

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. The cooperation of liver X receptors (LXRs) α and β and retinoic X receptor (RXR) modulate the expression of several genes involved in lipid metabolism in hepatocytes and macrophages. RXR is the receptor for 9-*cis* retinoic acid and dimerizes with VDR, TR, PPAR and several novel receptors including liver X receptors LXRα (also referred to as RLD-1), LXRβ and FXR. FXR and LXR fall into a category of proteins termed "orphan receptors" because of their lack of a defined function and, in the case of LXR, the lack of a defined ligand. Both LXR/RXR and FXR/RXR heterodimers retain their responsiveness to 9-*cis* retinoic acid. LXRα and LXRβ share considerable sequence homology and several functions, respond to the same endogenous and synthetic ligands, and play critical roles in maintaining lipid homeostasis. LXRβ is ubiquitously expressed and enriched in tissues of neuronal and endocrine origin.

REFERENCES

1. Mangelsdorf, D.J., et al. 1994. The retinoid receptors. In Sporn, M.B., et al, eds. The Retinoids: Biology, Chemistry, and Medicine. New York: Raven Press, 319-349.
2. Bhat, M.K., et al. 1994. Phosphorylation enhances the target gene sequence-dependent dimerization of thyroid hormone receptor with retinoid X receptor. Proc. Natl. Acad. Sci. USA 91: 7927-7931.
3. Song, C., et al. 1994. Ubiquitous receptor: a receptor that modulates gene activation by retinoic acid and thyroid hormone receptors. Proc. Natl. Acad. Sci. USA 91: 10809-10813.
4. Zechel, C., et al. 1994. The dimerization interfaces formed between the DNA-binding domains of RXR, RAR and TR determine the binding specificity and polarity of the full-length receptors to direct repeats. EMBO J. 13: 1425-1433.
5. Mangelsdorf, D.J., et al. 1995. The nuclear receptor superfamily: the second decade. Cell 83: 835-839.

CHROMOSOMAL LOCATION

Genetic locus: NR1H2 (human) mapping to 19q13.33; Nr1h2 (mouse) mapping to 7 B4.

SOURCE

LXRβ (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LXRβ 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-34341 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-34341 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LXRβ (Y-16) is recommended for detection of LXRβ 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).

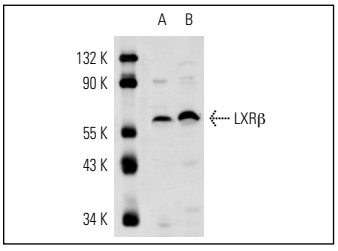
Suitable for use as control antibody for LXRβ siRNA (h): sc-45316, LXRβ siRNA (m): sc-45317, LXRβ shRNA Plasmid (h): sc-45316-SH, LXRβ shRNA Plasmid (m): sc-45317-SH, LXRβ shRNA (h) Lentiviral Particles: sc-45316-V and LXRβ shRNA (m) Lentiviral Particles: sc-45317-V.

LXRβ (Y-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

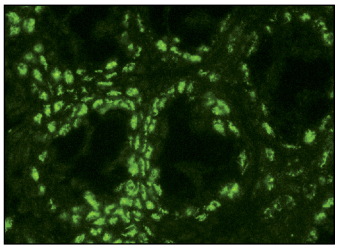
Molecular Weight of LXRβ: 56 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, mouse liver extract: sc-2256 or Hep G2 cell lysate: sc-2227.

DATA



LXRβ (Y-16): sc-34341. Western blot analysis of LXRβ expression in Hep G2 whole cell lysate (**A**) and Hep G2 nuclear extract (**B**).



LXRβ (Y-16): sc-34341. Immunofluorescence staining of normal mouse intestine frozen section showing nuclear staining.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.