SANTA CRUZ BIOTECHNOLOGY, INC.

LXRβ (N-20): sc-1001

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 hepatocyte 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.

CHROMOSOMAL LOCATION

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

SOURCE

LXRβ (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of LXRβ of rat 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-1001 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-1001 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LXRβ (N-20) 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), 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 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 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

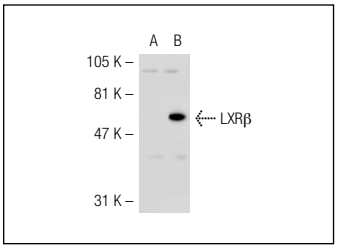
Molecular Weight of LXRβ: 56 kDa.

Positive Control: LXRβ (h3): 293T Lysate: sc-117211.

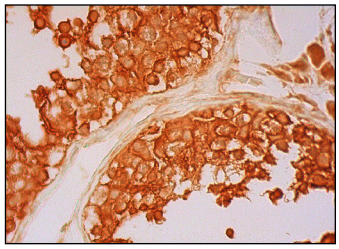
STORAGE

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

DATA



LXRβ (N-20): sc-1001. Western blot analysis of LXRβ expression in non-transfected: sc-117752 (**A**) and human LXRβ transfected: sc-117211 (**B**) 293T whole cell lysates.



LXRβ (N-20): sc-1001. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

1. Sibilia, M., et al. 2003. Mice humanised for the EGF receptor display hypomorphic phenotypes in skin, bone and heart. Development 130: 4515-4525.
2. Chintalacharuvu, S.R., et al. 2007. Liver X receptor is a therapeutic target in collagen-induced arthritis. Arthritis Rheum. 56: 1365-1367.
3. Matsumoto, S., et al. 2009. Liver X receptor-α regulates proopiomelanocortin (POMC) gene transcription in the pituitary. Mol. Endocrinol. 23: 47-60.
4. Shen, Q., et al. 2011. Liver X receptor-retinoid X receptor (LXR-RXR) heterodimer cistrome reveals coordination of LXR and AP1 signaling in keratinocytes. J. Biol. Chem. 286: 14554-14563.
5. Chen, Y., et al. 2011. RXRα and LXR activate two promoters in placenta- and tumor-specific expression of PLAC1. Placenta 32: 877-884.
6. Xu, Y., et al. 2014. Rutaecarpine suppresses atherosclerosis in ApoE$^{-/-}$ mice through upregulating ABCA1 and SR-BI within RCT. J. Lipid Res. 55: 1634-1647.
7. Kato, T., et al. 2015. Bone marrow angiotensin AT2 receptor deficiency aggravates atherosclerosis development by eliminating macrophage liver X receptor-mediated anti-atherogenic actions. J. Renin Angiotensin Aldosterone Syst. 16: 936-946.

RESEARCH USE

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