SANTA CRUZ BIOTECHNOLOGY, INC.

LXRβ (M-20): sc-1203

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.

REFERENCES

1. Mangelsdorf, D.J., et al. 1994. The Retinoids: Biology, Chemistry, and Medicine, 2nd Edition. Sporn, M.B., et al, eds. New York: Raven Press, Ltd., 314-349.
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.

CHROMOSOMAL LOCATION

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

SOURCE

LXRβ (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LXRβ of mouse origin.

PRODUCT

Each vial contains 100 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-1203 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-1203 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

LXRβ (M-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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). LXRβ (M-20) is also recommended for detection of LXRβ in additional species, including equine, canine, bovine and porcine.

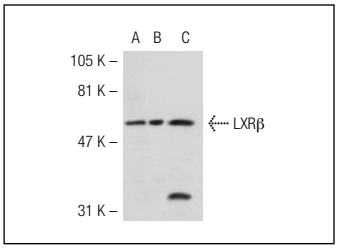
Suitable for use as control antibody for LXRβ siRNA (h): sc-45316, LXRβ siRNA (m): sc-45317, LXRβ shRNA Plasmid (h): sc-45316-SH, LXRβ shRNA Plasmid (m): sc-45317-SH, LXRβ shRNA (h) Lentiviral Particles: sc-45316-V and LXRβ shRNA (m) Lentiviral Particles: sc-45317-V.

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

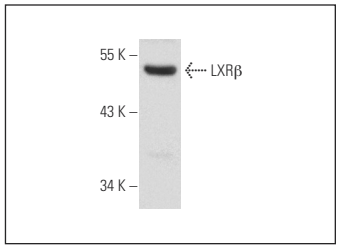
Molecular Weight of LXRβ: 56 kDa.

Positive Controls: LXRβ (h): 293T Lysate: sc-112157, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

DATA



LXRβ (M-20): sc-1203. Western blot analysis of LXRβ expression in non-transfected 293T: sc-117752 (**A**), human LXRβ transfected 293T: sc-112157 (**B**) and Hep G2 (**C**) whole cell lysates.



LXRβ (M-20): sc-1203. Western blot analysis of LXRβ expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Na, T.Y., et al. 2008. Liver X receptor mediates hepatitis B virus X protein-induced lipogenesis in hepatitis B virus-associated hepatocellular carcinoma. Hepatology 49: 1122-1131.
2. Zhou, X., et al. 2010. Inhibition of ERK1/2 and activation of liver X receptor synergistically induce macrophage ABCA1 expression and cholesterol efflux. J. Biol. Chem. 285: 6316-6326.
3. Elali, A., et al. 2011. Liver X receptor activation enhances blood-brain barrier integrity in the ischemic brain and increases the abundance of ATP-binding cassette transporters ABCB1 and ABCC1 on brain capillary cells. Brain Pathol. 22: 175-187.