SANTA CRUZ BIOTECHNOLOGY, INC.

LXRβ (H-8): sc-133221

SANTA CRUZ BIOTECHNOLOGY

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 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.

SOURCE

LXRβ (H-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 42-81 near the N-terminus of LXRβ of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 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-133221 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-133221 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

LXRβ (H-8) is recommended for detection of LXRβ of 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 LXRβ siRNA (h): sc-45316, LXRβ shRNA Plasmid (h): sc-45316-SH and LXRβ shRNA (h) Lentiviral Particles: sc-45316-V.

LXRβ (H-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

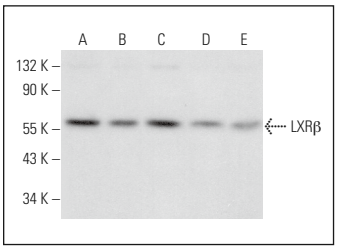
Molecular Weight of LXRβ: 56 kDa.

Positive Controls: LXRβ (h5): 293 Lysate: sc-158701, A549 cell lysate: sc-2413 or HeLa nuclear extract: sc-2120.

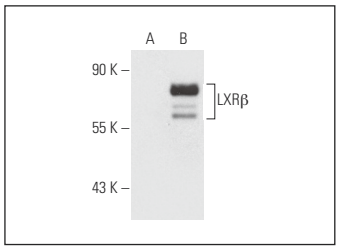
RECOMMENDED SUPPORT REAGENTS

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



LXRβ (H-8): sc-133221. Western blot analysis of LXRβ expression in HeLa (**A**) and SW480 (**B**) nuclear extracts and A549 (**C**), U-87 MG (**D**) and Y79 (**E**) whole cell lysates.



LXRβ (H-8): sc-133221. Western blot analysis of LXRβ expression in non-transfected: sc-110760 (**A**) and human LXRβ transfected: sc-158701 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Spyridon, M., et al. 2011. LXR as a novel antithrombotic target. Blood 117: 5751-5761.
2. Ding, H., et al. 2016. LXR agonist T0901317 upregulates thrombomodulin expression in glomerular endothelial cells by inhibition of nuclear factor-κB. Mol. Med. Rep. 13: 4888-4896.
3. Sakai, M., et al. 2019. Liver-derived signals sequentially reprogram myeloid enhancers to initiate and maintain Kupffer cell identity. Immunity 51: 655-670.e8.
4. Seidman, J.S., et al. 2020. Niche-specific reprogramming of epigenetic landscapes drives myeloid cell diversity in nonalcoholic steatohepatitis. Immunity 52: 1057-1074.e7.

RESEARCH USE

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

PROTOCOLS

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

CONJUGATES

See **LXRα/β (H-7): sc-377260** for LXRα/β antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.