

LXR α / β (H-144): sc-13068

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 LXR α (also referred to as RLD-1), LXR β 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. LXR α and LXR β share considerable sequence homology and several functions, respond to the same endogenous and synthetic ligands, and play critical roles in maintaining lipid homeostasis. LXR β is ubiquitously expressed and enriched in tissues of neuronal and endocrine origin.

CHROMOSOMAL LOCATION

Genetic locus: NR1H3 (human) mapping to 11p11.2, NR1H2 (human) mapping to 19q13.33; Nr1h3 (mouse) mapping to 2 E1, Nr1h2 (mouse) mapping to 7 B4.

SOURCE

LXR α / β (H-144) is a rabbit polyclonal antibody raised against amino acids 301-444 mapping near the C-terminus of LXR α of human origin.

PRODUCT

Each vial contains 200 μ g 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-13068 X, 200 μ g/0.1 ml.

APPLICATIONS

LXR α / β (H-144) is recommended for detection of LXR α and LXR β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LXR α / β (H-144) is also recommended for detection of LXR α and LXR β in additional species, including equine, canine, bovine, porcine and avian.

LXR α / β (H-144) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of LXR α : 50 kDa.

Molecular Weight of LXR β : 56 kDa.

Positive Controls: LXR α (h3): 293T Lysate: sc-177491, mouse liver extract: sc-2256 or LXR β (h): 293T Lysate: sc-112157.

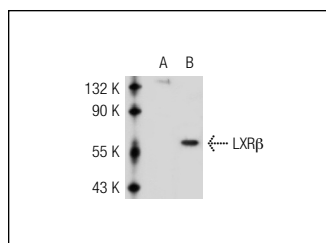
STORAGE

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

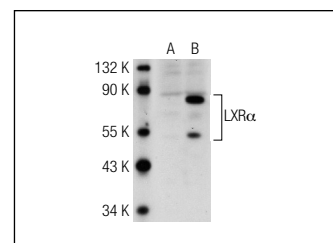
RESEARCH USE

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

DATA



LXR α / β (H-144): sc-13068. Western blot analysis of LXR β expression in non-transfected: sc-117752 (A) and human LXR β transfected: sc-112157 (B) 293T whole cell lysates.



LXR α / β (H-144): sc-13068. Western blot analysis of LXR α expression in non-transfected: sc-117752 (A) and human LXR α transfected: sc-177491 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Yoshikawa, T., et al. 2003. Cross-talk between peroxisome proliferator-activated receptor (PPAR) α and liver X receptor (LXR) in nutritional regulation of fatty acid metabolism. PPARs suppress sterol regulatory element binding protein-1c promoter through inhibition of LXR signaling. *Mol. Endocrinol.* 17: 1240-1254.
- Chin, H.J., et al. 2010. Omacor, n-3 polyunsaturated fatty acid, attenuated albuminuria and renal dysfunction with decrease of SREBP-1 expression and triglyceride amount in the kidney of type II diabetic animals. *Nephrol. Dial. Transplant.* 25: 1450-1457.
- Takeuchi, Y., et al. 2010. Polyunsaturated fatty acids selectively suppress sterol regulatory element-binding protein-1 through proteolytic processing and autoloop regulatory circuit. *J. Biol. Chem.* 285: 11681-11691.
- Mosialou, I., et al. 2010. Regulation of human apolipoprotein m gene expression by orphan and ligand-dependent nuclear receptors. *J. Biol. Chem.* 285: 30719-30730.
- 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.
- Fernández-Alvarez, A., et al. 2011. Human SREBP1c expression in liver is directly regulated by peroxisome proliferator-activated receptor α (PPAR α). *J. Biol. Chem.* 286: 21466-21477.
- Kuhla, A., et al. 2011. Aging is associated with a shift of fatty metabolism toward lipogenesis. *J. Gerontol. A Biol. Sci. Med. Sci.* 66: 1192-1200.

MONOS
Satisfaction
Guaranteed

Try **LXR α / β (H-7): sc-377260** or **LXR α / β (G-10): sc-271064**, our highly recommended monoclonal alternatives to LXR α / β (H-144). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **LXR α / β (H-7): sc-377260**.