

LXR α / β (C-19): sc-1201

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 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 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide 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-1201 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-1201 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LXR α / β (C-19) is recommended for detection of LXR α and LXR β of mouse, rat, human, chicken and *Xenopus laevis* 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)], immunofluorescence (start-ing dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LXR α / β (C-19) is also recommended for detection of LXR α and LXR β in additional species, including equine, canine, bovine, porcine and avian.

LXR α / β (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of LXR α : 50 kDa.

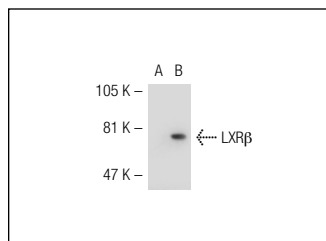
Molecular Weight of LXR β : 56 kDa.

Positive Controls: LXR β (h): 293T Lysate: sc-112157, LXR α (m): 293T Lysate: sc-127110 or HeLa whole cell lysate: sc-2200.

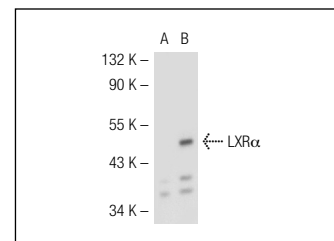
STORAGE

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

DATA



LXR α / β (C-19): sc-1201. 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 (C-19): sc-1201. Western blot analysis of LXR α expression in non-transfected: sc-117752 (A) and mouse LXR α transfected: sc-127110 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Costet, P., et al. 2000. Sterol-dependent transactivation of the ABC1 promoter by the liver X receptor/retinoid X receptor. *J. Biol. Chem.* 275: 28240-28245.
- Luo, Y., et al. 2000. Sterol upregulation of human CETP expression *in vitro* and in transgenic mice by an LXR element. *J. Clin. Invest.* 105: 513-520.
- Hashimoto, K., et al. 2006. Mouse sterol response element binding protein-1c gene expression is negatively regulated by thyroid hormone. *Endocrinology* 147: 4292-4302.
- Yeong, P., et al. 2010. Tryptase promotes human monocyte-derived macrophage foam cell formation by suppressing LXR α activation. *Biochim. Biophys. Acta* 1801: 567-576.
- Kumar, R., et al. 2010. Liver X receptor expression in human melanocytes, does it have a role in the pathogenesis of vitiligo? *Exp. Dermatol.* 19: 62-64.
- Palozza, P., et al. 2011. Lycopene regulation of cholesterol synthesis and efflux in human macrophages. *J. Nutr. Biochem.* 22: 971-978.
- Li, G., et al. 2011. Macrophage LXR α gene therapy ameliorates atherosclerosis as well as hypertriglyceridemia in LDLR^{-/-} mice. *Gene Ther.* 18: 835-841.

RESEARCH USE

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



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 (C-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **LXR α / β (H-7): sc-377260**.