

LXR α / β (R-20): sc-1206

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 (LXRs), also referred to as RLD-1, 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.

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.
3. Song, C., et al. 1994. Ubiquitous receptor: a receptor that modulates gene activation by retinoic acid and thyroid hormone receptors. Proc. Natl. Acad. Sci. USA 91: 10809-10813.

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 (R-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LXR β of rat 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-1206 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-1206 P, (100 μ g 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.

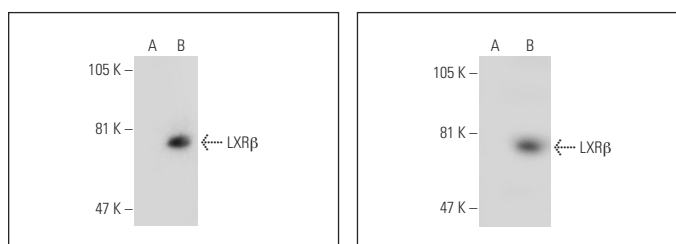
APPLICATIONS

LXR α / β (R-20) 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 (starting 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 (R-20) is also recommended for detection of LXR α and LXR β in additional species, including equine, canine, bovine, porcine and avian. LXR α / β (R-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of LXR α /LXR β : 50/56 kDa.

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

DATA



LXR α / β (R-20): sc-1206. 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 (R-20): sc-1206. 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.

SELECT PRODUCT CITATIONS

1. Tobin, K.A., et al. 2002. Liver X receptors as Insulin-mediating factors in fatty acid and cholesterol biosynthesis. J. Biol. Chem. 277: 10691-10697.
2. Juvet, L.K., et al. 2003. On the role of liver X receptors in lipid accumulation in adipocytes. Mol. Endocrinol. 17: 172-182.
3. Sanguino, E., et al. 2005. Atorvastatin reverses age-related reduction in rat hepatic PPAR α and HNF-4. Br. J. Pharmacol. 145: 853-861.
4. Deng, X., et al. 2007. Expression of the rat sterol regulatory element-binding protein-1c gene in response to Insulin is mediated by increased transactivating capacity of specificity protein 1 (Sp1). J. Biol. Chem. 282: 17517-17529.
5. Deng, X., et al. 2012. FoxO1 inhibits sterol regulatory element-binding protein-1c (SREBP-1c) gene expression via transcription factors Sp1 and SREBP-1c. J. Biol. Chem. 287: 20132-20143.



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 (R-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **LXR α / β (H-7): sc-377260**.