

FXR (C-20): sc-1204

BACKGROUND

The steroid receptor superfamily acts through direct association with DNA sequences known as hormone response elements (HREs) and bind DNA as either homo- or heterodimers. The promiscuous mediator of heterodimerization, RXR, is the receptor for 9-*cis* retinoic acid, and dimerizes with VDR, TR, PPAR, as well as several novel receptors including LXR (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. FXR has been shown to bind a class of lipid molecules called farnesoids. LXR/RXR heterodimers have highest affinity for DR-4 DNA elements while FXR/RXR heterodimers bind IR-1 elements. Both LXR/RXR and FXR/RXR heterodimers retain their responsiveness to 9-*cis* retinoic acid.

CHROMOSOMAL LOCATION

Genetic locus: NR1H4 (human) mapping to 12q23.1; Nr1h4 (mouse) mapping to 10 C2.

SOURCE

FXR (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FXR of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1204 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-1204 X, 200 µg/0.1 ml.

APPLICATIONS

FXR (C-20) is recommended for detection of FXR 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).

FXR (C-20) is also recommended for detection of FXR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FXR siRNA (h): sc-38848, FXR siRNA (m): sc-155894, FXR shRNA Plasmid (h): sc-38848-SH, FXR shRNA Plasmid (m): sc-155894-SH, FXR shRNA (h) Lentiviral Particles: sc-38848-V and FXR shRNA (m) Lentiviral Particles: sc-155894-V.

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

Molecular Weight of FXR: 69 kDa.

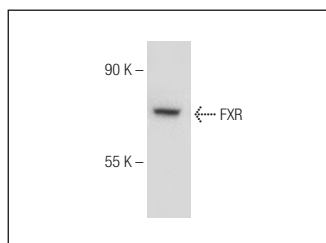
STORAGE

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



FXR (C-20): sc-1204. Western blot analysis of FXR expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Song, C., et al. 2001. Dehydroepiandrosterone sulfotransferase gene induction by bile acid activated farnesoid X receptor. *J. Biol. Chem.* 276: 42549-42556.
2. Swales, K.E., et al. 2006. The farnesoid X receptor is expressed in breast cancer and regulates apoptosis and aromatase expression. *Cancer Res.* 66: 10120-10126.
3. Jung, D. and Mangelsdorf, D.J. 2006. Pregnane X receptor is a target of farnesoid X receptor. *J. Biol. Chem.* 281: 19081-19091.
4. Lee, H., et al. 2007. Regulation of the sodium/sulfate co-transporter by farnesoid X receptor α . *J. Biol. Chem.* 282: 21653-21661.
5. Murakami, T., et al. 2007. The farnesoid X receptor induces fetuin-B gene expression in human hepatocytes. *Biochem. J.* 407: 461-469.
6. Fang, S., et al. 2008. The p300 acetylase is critical for ligand-activated farnesoid X receptor (FXR) induction of SHP. *J. Biol. Chem.* 283: 35086-35095.
7. Martínez-Fernández, P., et al. 2009. Knockdown of ATP8B1 expression leads to specific downregulation of the bile acid sensor FXR in HepG2 cells: effect of the FXR agonist GW4064. *Am. J. Physiol. Gastrointest. Liver Physiol.* 296: G1119-G1129.
8. Purushotham, A., et al. 2012. Hepatic deletion of SIRT1 decreases hepatocyte nuclear factor 1 α /farnesoid X receptor signaling and induces formation of cholesterol gallstones in mice. *Mol. Cell. Biol.* 32: 1226-1236.
9. Chen, F., et al. 2013. Phospholipase D2 mediates signaling by ATPase class I type 8B membrane 1. *J. Lipid Res.* 54: 379-385.

MONOS
Satisfaction
Guaranteed

Try **FXR (D-3): sc-25309**, our highly recommended monoclonal alternative to FXR (C-20).