

FXR (H-130): sc-13063

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 (H-130) is a rabbit polyclonal antibody raised against amino acids 1-130 mapping near the N-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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13063 X, 200 µg/0.1 ml.

APPLICATIONS

XR (H-130) 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), immunohistochemistry (including paraffin-embedded sections) (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 (H-130) is also recommended for detection of FXR in additional species, including bovine.

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 (H-130) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of FXR: 69 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

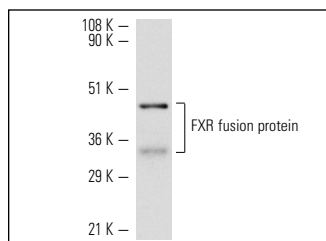
STORAGE

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

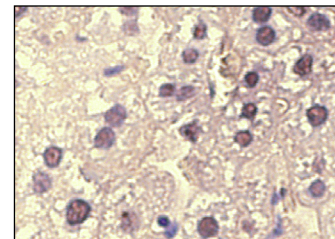
RESEARCH USE

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

DATA



FXR (H-130): sc-13063. Western blot analysis of human recombinant FXR fusion protein.



FXR (H-130): sc-13063. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Bishop-Bailey, D., et al. 2004. Expression and activation of the farnesoid X receptor in the vasculature. *Proc. Natl. Acad. Sci. USA* 101: 3668-3673.
2. Ananthanarayanan, M. 2004. Ligand-dependent activation of the farnesoid X-receptor directs arginine methylation of histone H3 by CARM1. *J. Biol. Chem.* 279: 54348-54357.
3. Lee, F.Y., et al. 2010. Activation of the farnesoid X receptor provides protection against acetaminophen-induced hepatic toxicity. *Mol. Endocrinol.* 24: 1626-1636.
4. Renga, B., et al. 2011. The nuclear receptor FXR regulates hepatic transport and metabolism of glutamine and glutamate. *Biochim. Biophys. Acta* 1812: 1522-1531.
5. Schmidt, D.R., et al. 2011. AKR1B7 is induced by the farnesoid X receptor and metabolizes bile acids. *J. Biol. Chem.* 286: 2425-2432.
6. Chennamsetty, I., et al. 2011. Farnesoid X receptor represses hepatic human APOA gene expression. *J. Clin. Invest.* 121: 3724-3734.
7. Renga, B., et al. 2011. Farnesoid X receptor suppresses constitutive androstane receptor activity at the multidrug resistance protein-4 promoter. *Biochim. Biophys. Acta* 1809: 157-165.
8. Li, D., et al. 2011. High expression of liver histone deacetylase 3 contributes to high-fat-diet-induced metabolic syndrome by suppressing the PPAR-γ and LXR-α-pathways in E3 rats. *Mol. Cell. Endocrinol.* 344: 69-80.
9. Prade, E., et al. 2012. Bile acids down-regulate caveolin-1 in esophageal epithelial cells through sterol responsive element-binding protein. *Mol. Endocrinol.* 26: 819-832.

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Try **FXR (D-3): sc-25309**, our highly recommended monoclonal alternative to FXR (H-130).