SANTA CRUZ BIOTECHNOLOGY, INC.

FXR (Q-20): sc-1205

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near 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-1205 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-1205 X, 200 µg/0.1 ml.

APPLICATIONS

FXR (Q-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 (Q-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 siRNA (r): sc-108079, FXR shRNA Plasmid (h): sc-38848-SH, FXR shRNA Plasmid (m): sc-155894-SH, FXR shRNA Plasmid (r): sc-108079-SH, FXR shRNA (h) Lentiviral Particles: sc-38848-V, FXR shRNA (m) Lentiviral Particles: sc-155894-V and FXR shRNA (r) Lentiviral Particles: sc-108079-V.

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

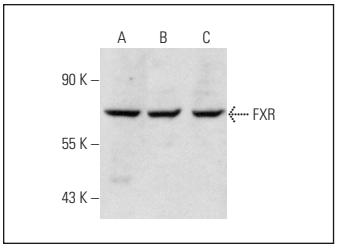
Molecular Weight of FXR: 69 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HeLa whole cell lysate: sc-2200 or BJAB whole cell lysate: sc-2207.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FXR (Q-20): sc-1205. Western blot analysis of FXR expression in HeLa (**A**) and BJAB (**B**) whole cell lysates and HeLa nuclear extract (**C**).

SELECT PRODUCT CITATIONS

1. Martin, I.V., et al. 2010. Bile acid retention and activation of endogenous hepatic farnesoid-X-receptor in the pathogenesis of fatty liver disease in ob/ob-mice. Biol. Chem. 391: 1441-1449.
2. 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.