SANTA CRUZ BIOTECHNOLOGY, INC.

PXR.1 (A-20): sc-7737

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

Steroid hormones function as signaling molecules by diffusing into cells and interacting with specific intracellular receptors to regulate gene expression. This superfamily of receptors includes both steroid and nonsteroid receptors. Like many nonsteroid hormone receptors, PXR (Pregnane X Receptor) binds as a heterodimer with RXR to a DNA sequence typical of a nonsteroid hormone receptor; however, PXR is activated by several steroids, such as naturally occurring pregnanes and synthetic glucocorticoids and anti- glucocorticoids. PXR exists as two alternatively spliced isoforms, PXR.1 and PXR.2. PXR is thought to define a novel steroid hormone signaling pathway that may account for some of the effects of synthetic glucocorticoids and antiglucocorticoids that are not mediated through the classical glucocorticoid receptor signaling pathway.

CHROMOSOMAL LOCATION

Genetic locus: NR1I2 (human) mapping to 3q13.3; Nr1i2 (mouse) mapping to 16 B3.

SOURCE

PXR.1 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within the PXR.1 unique domain of PXR.1 of mouse 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-7737 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-7737 X, 200 µg/0.1 ml.

APPLICATIONS

PXR.1 (A-20) is recommended for detection of PXR.1 of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for PXR siRNA (m): sc-44058, PXR siRNA (h): sc-44057, PXR shRNA Plasmid (m): sc-44058-SH, PXR shRNA Plasmid (h): sc-44057-SH, PXR shRNA (m) Lentiviral Particles: sc-44058-V and PXR shRNA (h) Lentiviral Particles: sc-44057-V.

PXR.1 (A-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PXR.1: 50 kDa.

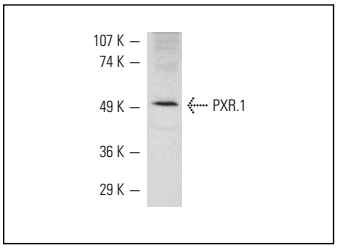
STORAGE

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

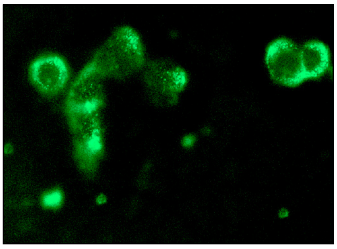
RESEARCH USE

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

DATA



PXR.1 (A-20): sc-7737. Western blot analysis of PXR.1 expression in COLO 320DM whole cell lysate.



PXR.1 (A-20): sc-7737. Immunofluorescence staining of methanol-fixed COLO 32DM cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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2. Balasubramaniyan, N., et al. 2005. Multiple mechanisms of ontogenic regulation of nuclear receptors during rat liver development. Am. J. Physiol. Gastrointest. Liver Physiol. 288: G251-G260.
3. Mitchell, B.F., et al. 2005. Metabolites of progesterone and the pregnane X receptor: a novel pathway regulating uterine contractility in pregnancy? Am. J. Obstet. Gynecol. 192: 1304-1313.
4. Li, T., et al. 2006. Rifampicin induction of CYP3A4 requires pregnane X receptor cross talk with hepatocyte nuclear factor 4α and coactivators, and suppression of small heterodimer partner gene expression. Drug Metab. Dispos. 34: 756-764.
5. Li, T., et al. 2007. PXR induces CYP27A1 and regulates cholesterol metabolism in the intestine. J. Lipid Res. 48: 373-384.
6. Liu, M.J., et al. 2009. The aldo-keto reductase AKR1B7 gene is a common transcriptional target of xenobiotic receptors PXR and CAR. Mol. Pharmacol. 76: 604-611.
7. Zastre, J.A., et al. 2009. Up-regulation of P-glycoprotein by HIV protease inhibitors in a human brain microvessel endothelial cell line. J. Neurosci. Res. 87: 1023-1036.
8. 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. J. Biol. Chem. 391: 1441-1449.