SANTA CRUZ BIOTECHNOLOGY, INC.

PXR (G-11): sc-48403

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 3q13.33.

SOURCE

PXR (G-11) is a mouse monoclonal antibody raised against amino acids 101-260 of PXR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PXR (G-11) is available conjugated to agarose (sc-48403 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48403 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48403 PE), fluorescein (sc-48403 FITC), Alexa Fluor® 488 (sc-48403 AF488), Alexa Fluor® 546 (sc-48403 AF546), Alexa Fluor® 594 (sc-48403 AF594) or Alexa Fluor® 647 (sc-48403 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-48403 AF680) or Alexa Fluor® 790 (sc-48403 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PXR (G-11) is recommended for detection of PXR.1 and PXR.2 of human origin by Western Blotting (starting dilution 1:100, 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).

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

Molecular Weight of PXR: 50 kDa.

Positive Controls: PXR (h): 293 Lysate: sc-158906, COLO 320DM cell lysate: sc-2226 or Hep G2 cell lysate: sc-2227.

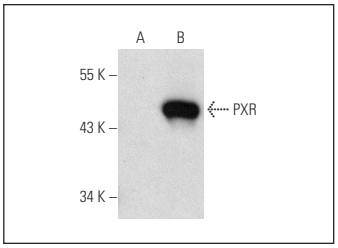
STORAGE

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

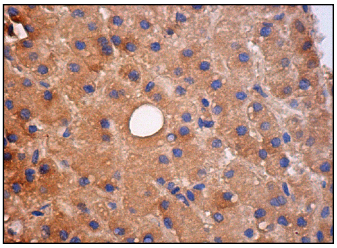
RESEARCH USE

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

DATA



PXR (G-11): sc-48403. Western blot analysis of PXR expression in non-transfected: sc-110760 (**A**) and human PXR transfected: sc-158906 (**B**) 293 whole cell lysates.



PXR (G-11): sc-48403. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Raynal, C., et al. 2010. Pregnane X receptor (PXR) expression in colorectal cancer cells restricts irinotecan chemosensitivity through enhanced SN-38 glucuronidation. Mol. Cancer 9: 46.
2. Kim, S.W., et al. 2015. Casein kinase 2 (CK2)-mediated phosphorylation of Hsp90β as a novel mechanism of rifampin-induced MDR1 expression. J. Biol. Chem. 290: 17029-17040.
3. Koutsounas, I., et al. 2015. Pregnane X receptor expression in human pancreatic adenocarcinoma: associations with clinicopathologic parameters, tumor proliferative capacity, patients' survival, and retinoid X receptor expression. Pancreas 44: 1134-1140.
4. Kim, S.W., et al. 2017. Role of 14-3-3 σ in over-expression of P-gp by rifampin and paclitaxel stimulation through interaction with PXR. Cell. Signal. 31: 124-134.
5. Okada, N., et al. 2017. Extracts of immature orange *(Aurantii fructus immaturus)* and citrus unshiu peel *(Citri unshiu pericarpium)* induce P-glycoprotein and cytochrome P450 3A4 expression via upregulation of pregnane X receptor. Front. Pharmacol. 8: 84.
6. Rigalli, J.P., et al. 2018. The pregnane X receptor (PXR) and the nuclear receptor corepressor 2 (NCoR2) modulate cell growth in head and neck squamous cell carcinoma. PLoS ONE 13: e0193242.
7. Feng, F., et al. 2018. Pregnane X receptor mediates sorafenib resistance in advanced hepatocellular carcinoma. Biochim. Biophys. Acta 1862: 1017-1030.
8. Yan, L., et al. 2018. Inhibitory effect of PXR on ammonia-induced hepatocyte autophagy via P53. Toxicol. Lett. 295: 153-161.

PROTOCOLS

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