

# PXR (H-11): sc-48340

## 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 antigluco-corticoids that are not mediated through the classical glucocorticoid receptor signaling pathway.

## CHROMOSOMAL LOCATION

Genetic locus: NR1I2 (human) mapping to 3q13.33.

## SOURCE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-48340 X, 200 µg/0.1 ml.

PXR (H-11) is available conjugated to agarose (sc-48340 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48340 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48340 PE), fluorescein (sc-48340 FITC), Alexa Fluor<sup>®</sup> 488 (sc-48340 AF488), Alexa Fluor<sup>®</sup> 546 (sc-48340 AF546), Alexa Fluor<sup>®</sup> 594 (sc-48340 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-48340 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-48340 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-48340 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

PXR (H-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) 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.

PXR (H-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

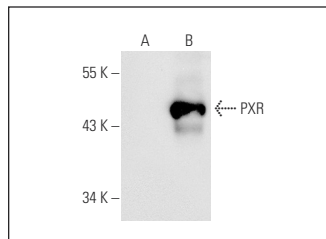
Molecular Weight of PXR: 50 kDa.

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

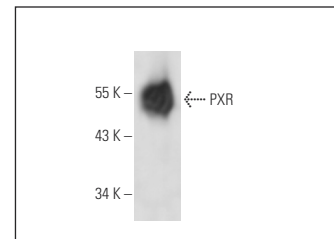
## STORAGE

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

## DATA



PXR (H-11): sc-48340. Western blot analysis of PXR expression in non-transfected: sc-110760 (A) and human PXR transfected: sc-158906 (B) 293 whole cell lysates.



PXR (H-11): sc-48340. Western blot analysis of human recombinant PXR.

## SELECT PRODUCT CITATIONS

- Jiang, H., et al. 2009. Association of pregnane X receptor with multidrug resistance-related protein 3 and its role in human colon cancer chemoresistance. *J. Gastrointest. Surg.* 13: 1831-1838.
- Hu, G., et al. 2010. Pregnane X receptor is SUMOylated to repress the inflammatory response. *J. Pharmacol. Exp. Ther.* 335: 342-350.
- Novotna, A., et al. 2011. Construction and characterization of hepatocyte nuclear factor HNF4α1 over-expressing cell line derived from human hepatoma Hep G2 cells. *Eur. J. Pharmacol.* 669: 45-50.
- Doricakova, A., et al. 2013. The role of residues T248, Y249 and T422 in the function of human pregnane X receptor. *Arch. Toxicol.* 87: 291-301.
- Smutny, T., et al. 2014. U0126, a mitogen-activated protein kinase kinase 1 and 2 (MEK1 and 2) inhibitor, selectively up-regulates main isoforms of CYP3A subfamily via a pregnane X receptor (PXR) in Hep G2 cells. *Arch. Toxicol.* 88: 2243-2259.
- Doricakova, A. and Vrzal, R. 2015. A food contaminant ochratoxin A suppresses pregnane X receptor (PXR)-mediated CYP3A4 induction in primary cultures of human hepatocytes. *Toxicology* 337: 72-78.
- Tan, H., et al. 2016. SUMOylation of pregnane X receptor suppresses rifampicin-induced CYP3A4 and P-gp expression and activity in LS174T cells. *J. Pharmacol. Sci.* 130: 66-71.
- Robbins, D., et al. 2016. Human pregnane X receptor compromises the function of p53 and promotes malignant transformation. *Cell Death Discov.* 2: 16023.
- Doricakova, A., et al. 2017. Differential effects of the enantiomers of tamsulosin and tolterodine on P-glycoprotein and cytochrome P450 3A4. *Naunyn Schmiedeberg's Arch. Pharmacol.* 390: 49-59.

## RESEARCH USE

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