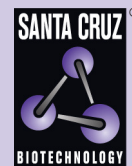


PR (H-190): sc-7208



The Power to Question

BACKGROUND

The effects of progesterone are mediated by two functionally different isoforms of the progesterone receptor, PR-A and PR-B, which are transcribed from distinct, estrogen-inducible promoters within a single copy of the PR gene. The first 164 amino acids of PR-B are absent in PR-A. Progesterone-bound PR-A and PR-B have different transcription activation properties. Specifically, PR-B functions as a transcriptional activator in most cell and promoter contexts, while PR-A is transcriptionally inactive and functions as a strong ligand-dependent transdominant repressor of steroid hormone receptor transcriptional activity. An inhibitory domain (ID), which maps to the amino terminus of the receptor, exists within both PR isoforms. Interestingly, the ID is functionally active only in PR-A and is necessary for steroid hormone transrepression by PR-A, suggesting that PR-A and PR-B may have different conformations in the cell.

CHROMOSOMAL LOCATION

Genetic locus: PGR (human) mapping to 11q22.1; Pgr (mouse) mapping to 9 A1.

SOURCE

PR (H-190) is a rabbit polyclonal antibody raised against amino acids 375-564 of PR 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-7208 X, 200 µg/0.1 ml.

APPLICATIONS

PR (H-190) is recommended for detection of progesterone receptor (PR-A and PR-B) 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).

Suitable for use as control antibody for PR siRNA (h): sc-29457, PR siRNA (m): sc-36309, PR shRNA Plasmid (h): sc-29457-SH, PR shRNA Plasmid (m): sc-36309-SH, PR shRNA (h) Lentiviral Particles: sc-29457-V and PR shRNA (m) Lentiviral Particles: sc-36309-V.

PR (H-190) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PR-A: 81 kDa.

Molecular Weight of PR-B: 116 kDa.

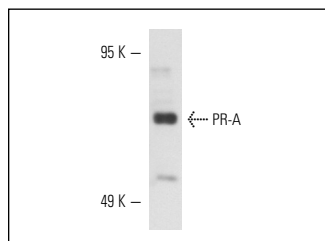
STORAGE

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

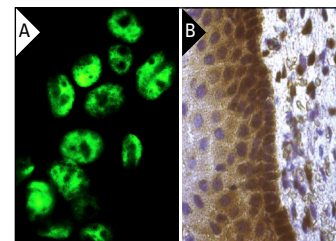
RESEARCH USE

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

DATA



PR (H-190): sc-7208. Western blot analysis of PR-A expression in MCF7 whole cell lysate.



PR (H-190): sc-7208. Immunofluorescence staining of methanol-fixed MCF7 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing nuclear staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS

- Knowlton, A.A., et al. 2001. Heat-shock factor-1, steroid hormones, and regulation of heat-shock protein expression in the heart. *Am. J. Physiol. Heart Circ. Physiol.* 280: H455-H464.
- Chung, D., et al. 2011. Mouse primary uterine cell coculture system revisited: ovarian hormones mimic the aspects of *in vivo* uterine cell proliferation. *Endocrinology* 152: 3246-3258.
- Yudt, M.R., et al. 2011. Discovery of a novel mechanism of steroid receptor antagonism: WAY-255348 modulates progesterone receptor cellular localization and promoter interactions. *Biochem. Pharmacol.* 82: 1709-1719.
- Sinha, S., et al. 2011. Frequent alterations of LOH11CR2A, PIG8 and CHEK1 genes at chromosomal 11q24.1-24.2 region in breast carcinoma: clinical and prognostic implications. *Mol. Oncol.* 5: 454-464.
- Liu, Q., et al. 2011. Gain in transcriptional activity by primate-specific coevolution of melanoma antigen-A11 and its interaction site in androgen receptor. *J. Biol. Chem.* 286: 29951-29963.
- Busia, L., et al. 2011. The antiprogestin Lonaprisan inhibits breast cancer cell proliferation by inducing p21 expression. *Mol. Cell. Endocrinol.* 333: 37-46.
- Giulianelli, S., et al. 2012. Estrogen receptor α mediates progestin-induced mammary tumor growth by interacting with progesterone receptors at the Cyclin D1/MYC promoters. *Cancer Res.* 72: 2416-2427.
- Guo, W., et al. 2012. Glucocorticoid receptor mediates the effect of progesterone on uterine natural killer cells. *Am. J. Reprod. Immunol.* 67: 463-473.

MONOS
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Try **PR (F-4): sc-166169** or **PR (F-2): sc-166170**, our highly recommended monoclonal alternatives to PR (H-190). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PR (F-4): sc-166169**.