Store at -20°C

#3171

Phospho-Progesterone Receptor (Ser190) Antibody

✓ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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rev. 08/31/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #5241
Swiss-Prot Acc. #P06401

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H	90, 118 kDa	Rabbit**

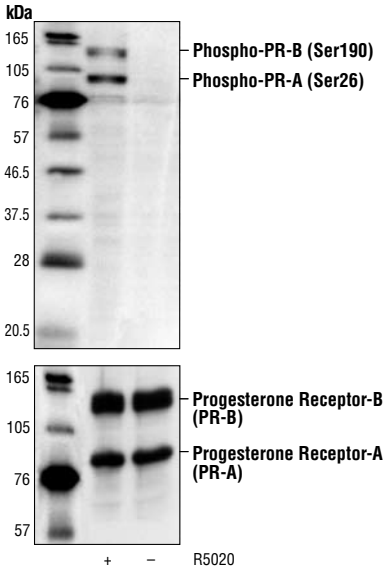
Background: Human progesterone receptor (PR) is expressed as two forms: the full length PR B and the short form PR A. PR A lacks the first 164 amino acid residues of PR B (1,2). Both PR A and PR B are ligand activated but differ in their relative ability to activate target gene transcription (3,4). The activity of PR is regulated by phosphorylation, and at least seven serine residues are phosphorylated in its amino-terminal domain. Three sites (Ser81, 102 and 162) are unique to full length PR B while others (Ser190, 294, 345 and 400) are shared by both isoforms (5). Phosphorylation of PR B at Ser190 (equivalent to Ser26 of PR A) is catalyzed by CDK2 (6). Mutation of Ser190 results in decreased activity of PR (7), suggesting that the phosphorylation of Ser190 may be critical to its biological function.

Specificity/Sensitivity: Phospho-Progesterone Receptor (Ser190) Antibody detects endogenous levels of both progesterone receptor B and A forms only when phosphorylated at Ser190 and Ser26, respectively. This antibody does not cross-react with other PR family members.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser190 of human progesterone receptor. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

(1) Evans, R.M. (1988) *Science* 240, 889–895.
(2) Kastner, P. et al. (1990) *EMBO J.* 112, 1603–1614.
(3) Giangrande, P.H. et al. (2000) *Mol. Cell. Biol.* 20, 3102–3115.
(4) Wen, D.X. et al. (1994) *Mol. Cell. Biol.* 14, 8356–8364.
(5) Clemm, D.L. et al. (2000) *Mol. Endocrinol.* 14, 52–65.
(6) Zhang, Y. et al. (1997) *Mol. Endocrinol.* 11, 823–832.
(7) Takimoto, G.S. et al. (1996) *J. Biol. Chem.* 271, 13308–13316.



Western blot analysis of extracts from T47D cells, untreated or stimulated with 100 nM promegestone (R5020) for 1 hour using Phospho-Progesterone Receptor (Ser190) Antibody (upper) and control Progesterone Receptor Antibody #3172 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

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