

#13736 Store at -20C

Phospho-Progesterone Receptor (Ser294) Antibody



Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	90 (PR-A), 118 (PR-B)	Rabbit	#P06401	5241

Product Usage Information	Application Western Blotting	Dilution 1:1000
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.	
Specificity / Sensitivity	Phospho-Progesterone Receptor (Ser294) Antibody recognizes endogenous levels of progesterone receptor B (PR-B) and progesterone receptor A (PR-A) proteins only when phosphorylated at Ser294 and Ser130, respectively. This antibody does not cross-react with other progesterone receptor family members.	
Species predicted to react based on 100% sequence homology:	Mouse, Rat, Pig, Horse	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser294 of human progesterone receptor B (PR-B) protein. Antibodies are purified by protein A and peptide affinity chromatography.	
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; at least seven serine residues are phosphorylated in its amino-terminal domain. Three sites (Ser81, Ser102, and Ser162) are unique to full length PR-B, while other sites (Ser190, Ser294, Ser345, and Ser400) 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 at Ser190 may be critical to its biological function. Progesterone receptor Ser294 is as an important hormone-dependent phospho-acceptor site that serves as an extracellular signaling "sensor." Research studies indicate that p44/p42 MAP kinases are responsible for phosphorylation of progesterone receptor at Ser294 following hormone binding. This phosphorylation event promotes nuclear retention of the receptor, enhanced transcriptional activity, and ubiquitin-dependent proteasomal degradation (6,8,9).	
Background References	<ol style="list-style-type: none"> 1. Evans, R.M. (1988) <i>Science</i> 240, 889-895. 2. Kastner, P. et al. (1990) <i>EMBO J.</i> 112, 1603-1614. 3. Giangrande, P.H. et al. (2000) <i>Mol. Cell. Biol.</i> 20, 3102-3115. 4. Wen, D.X. et al. (1994) <i>Mol. Cell. Biol.</i> 14, 8356-8364. 5. Clemm, D.L. et al. (2000) <i>Mol. Endocrinol.</i> 14, 52-65. 6. Zhang, Y. et al. (1997) <i>Mol. Endocrinol.</i> 11, 823-832. 7. Takimoto, G.S. et al. (1996) <i>J. Biol. Chem.</i> 271, 13308-13316. 8. Lange, C.A. et al. (2000) <i>Proc Natl Acad Sci U S A</i> 97, 1032-7. 9. Daniel, A.R. et al. (2007) <i>Steroids</i> 72, 188-201. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.