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Phospho-Progesterone Receptor (Ser190) Rabbit pAb

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Catalog # AP94186

Product Information

Application	WB
Primary Accession	Q63449
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	99408
Physical State	Liquid
Immunogen	KLH conjugated Synthesised phosphopeptide derived from rat Progesterone Receptor around the phosphorylation site of Ser190
Epitope Specificity	GL(p-S)P
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Note=Nucleoplasmic shuttling is both homone- and cell cycle-dependent. On hormone stimulation, retained in the cytoplasm in the G(1) and G(2)/M phases. Isoform A: Nucleus. Cytoplasm. Note=Mainly nuclear.
SIMILARITY	Belongs to the nuclear hormone receptor family. NR3 subfamily. Contains 1 nuclear receptor DNA-binding domain.
SUBUNIT	Interacts with SMARD1 and UNC45A. Interacts with CUEDC2; the interaction promotes ubiquitination, decreases sumoylation, and repesses transcriptional activity. Interacts with PIAS3; the interaction promotes sumoylation of PR in a hormone-dependent manner, inhibits DNA-binding, and alters nuclear export. Interacts with SP1; the interaction requires ligand-induced phosphorylation on Ser-345 by ERK1/2 MAPK. Interacts with PRMT2.
Post-translational modifications	Phosphorylated on multiple serine sites. Several of these sites are hormone-dependent. Phosphorylation on Ser-294 occurs preferentially on isoform B, is highly hormone-dependent and modulates ubiquitination and sumoylation on Lys-388. Phosphorylation on Ser-102 and Ser-345 also requires induction by hormone. Basal phosphorylation on Ser-81, Ser-162, Ser-190 and Ser-400 is increased in response to progesterone and can be phosphorylated in vitro by the CDK2-A1 complex. Increased levels of phosphorylation on Ser-400 also in the presence of EGF, heregulin, IGF, PMA and FBS. Phosphorylation at this site by CDK2 is ligand-independent, and increases nuclear translocation and transcriptional activity. Phosphorylation at Ser-162 and Ser-294, but not at Ser-190, is impaired during the G(2)/M phase of the cell cycle. Phosphorylation on Ser-345 by ERK1/2 MAPK is required for interaction with SP1. Sumoylation is hormone-dependent and represses transcriptional activity. Sumoylation on all three sites is enhanced by PIAS3. Desumoylated by SENP1. Sumoylation on Lys-388, the main site of sumoylation, is repressed by ubiquitination on the same site, and modulated by phosphorylation at Ser-294.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions	Estrogen and progesterone receptor are members of a family of transcription factors that are regulated by the binding of their cognate ligands. The interaction of hormone-bound estrogen receptors with estrogen responsive elements(EREs) alters transcription of ERE-containing genes. The carboxy terminal region of the estrgen receptor contains the ligand binding domain, the amino terminus serves as the transactivation domain, and the DNA binding domain is centrally located. Two forms of estrogen receptor have been identified, ER alpha and ER beta. ER alpha and ER beta have been shown to be differentially activated by various ligands. The biological response to progesterone is mediated by two distinct forms of the human progesterone receptor (hPR-Aand hPR-B), which arise from alternative splicing. In most cells, hPR-B functions as a transcriptional activator of progesterone-responsive gene, whereas hPR-A function as a transcriptional inhibitor of all steroid hormone receptors.

Additional Information

Gene ID	25154
Other Names	Progesterone receptor, PR, Nuclear receptor subfamily 3 group C member 3, Pgr, Nr3c3
Target/Specificity	Isoform A: Nucleus. Cytoplasm. Note=Mainly nuclear.
Dilution	WB=1:500-2000,Flow-Cyt=1ug/Test
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Pgr
Synonyms	Nr3c3
Function	The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Depending on the isoform, progesterone receptor functions as a transcriptional activator or repressor (By similarity).
Cellular Location	Nucleus. Cytoplasm. Note=Nucleoplasmic shuttling is both hormone- and cell cycle-dependent. On hormone stimulation, retained in the cytoplasm in the G(1) and G(2)/M phases (By similarity).
Tissue Location	Isoform A and isoform B are expressed in the pituitary.

Background

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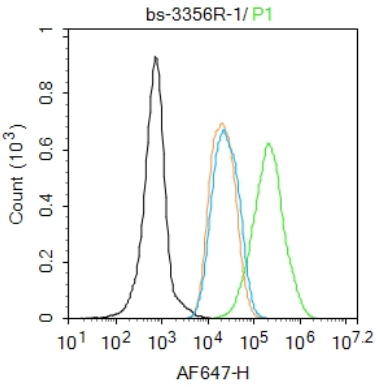
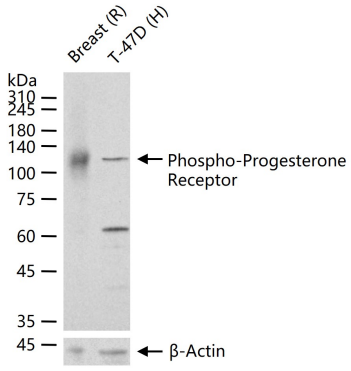
Images



Blank control: MCF7. Primary Antibody (green line): Rabbit Anti-Phospho-Progesterone Receptor (Ser190) antibody (AP94186) Dilution: 1 µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1 µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20℃. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



25 ug total protein per lane of various lysates (see on figure) probed with Phospho-Progesterone Receptor (Ser190) polyclonal antibody, unconjugated (AP94186) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.