

Rabbit Progesterone Receptor Polyclonal Antibody | anti-PGR antibody

Phospho-Progesterone Receptor (Ser345) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329829	Rabbit	Human, Rat, Monkey Predicted Reactivity: Pig (86%), Dog (86%)	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

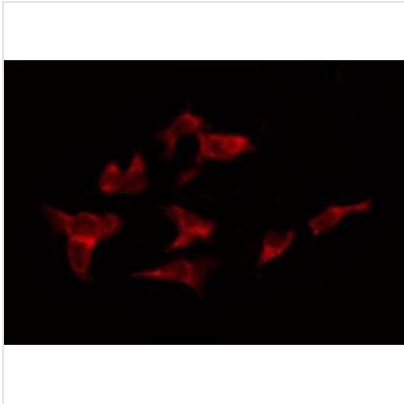
Progesterone Receptor; Polyclonal Antibody; Phospho-Progesterone Receptor (Ser345) Antibody; NR3C3; Nuclear receptor subfamily 3 group C member 3; PGR; PR; PRA; PRB; PRGR_HUMAN; Progesterone receptor; Progesterin receptor form A; Progesterin receptor form B; anti-PGR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Rat, Monkey Predicted Reactivity: Pig (86%), Dog (86%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-Progesterone Receptor (Ser345) Antibody detects endogenous levels of Progesterone Receptor only when phosphorylated at Ser345. Tissue Specificity: In reproductive tissues the expression of isoform A and isoform B varies as a consequence of developmental and hormonal status. Isoform A and isoform B are expressed in comparable levels in uterine glandular epithelium during the proliferative phase of the menstrual cycle. Expression of isoform B but not of isoform A persists in the glands during mid-secretory phase. In the stroma, isoform A is the predominant form throughout the cycle. Heterogeneous isoform expression between the glands of the endometrium basalis and functionalis is implying region-specific responses to hormonal stimuli.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-PGR antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human Progesterone Receptor around the phosphorylation site of Ser345.
Conjugation	Unconjugated
Fragment	Fab fragment

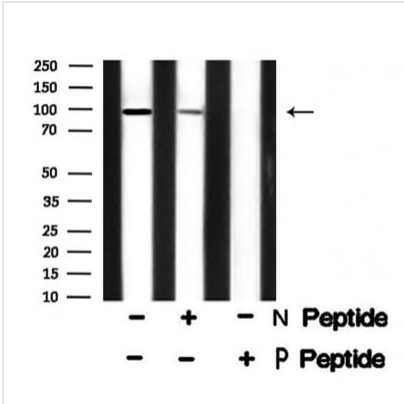
Post Translational Modifications	Phosphorylated on multiple serine sites. Several of these sites are hormone-dependent. Phosphorylation on Ser-294 occurs preferentially on isoform B, is highly hormone-dependent and modulates ubiquitination and sumoylation on Lys-388. Phosphorylation on Ser-102 and Ser-345 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. Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294. Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane targeting and for rapid intracellular signaling via ERK and AKT kinases and cAMP generation.
Subunit Structure	Interacts with SMARD1 and UNC45A. Interacts with CUEDC2; the interaction promotes ubiquitination, decreases sumoylation, and represses 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. Isoform A interacts with NCOR2. Isoform B (but not isoform A) interacts with NCOA2 and NCOA1. Isoform B (but not isoform A) interacts with KLF9. Interacts with GTF2B.
Similarity	Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain. Belongs to the nuclear hormone receptor family. NR3 subfamily.
Subcellular 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. Nucleus. Cytoplasm. Note: Mainly nuclear. Mitochondrion outer membrane.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



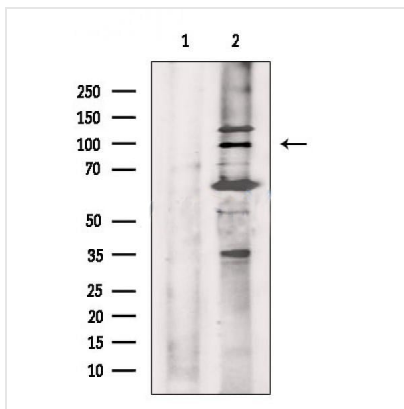
Application Data

At 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of Progesterone Receptor (Phospho-Ser345) using UV treated 293 whole cell lysates. -/+ means absence or presence of N peptide; -/+ non-phospho peptide) and P peptide(phospho peptide).



WB (Western Blot)

Western blot analysis of extracts from Rat brain, using Phospho-Progesterone Receptor (Ser345) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PGR antibody

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 transcriptional activator or repressor. Ligand-dependent transdominant repressor of steroid hormone receptor transcriptional activity including repression of its isoform B, MR and ER. Transrepressional activity may involve recruitment of corepressor NCOR2. Transcriptional activator of several progesteron-dependent promoters in a variety of cell types. Involved in activation of SRC-dependent MAPK signaling on hormone stimulation. Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.

NCBI AND UNIPROT INFORMATION

NCBI GI #	110611914
NCBI GeneID	5241
NCBI Accession #	NP_000917.3
NCBI GenBank Nucleotide #	NM_000926.4
UniProt Accession #	P06401; Q9UPF7; A7X8B0
Molecular Weight	98,981 Da
NCBI Official Full Name	progesterone receptor isoform B
NCBI Official Synonym Full Names	progesterone receptor
NCBI Official Symbol	PGR
NCBI Official Synonym Symbols	PR; NR3C3
NCBI Protein Information	progesterone receptor; nuclear receptor subfamily 3 group C member 3
UniProt Protein Name	Progesterone receptor
UniProt Gene Name	PGR
UniProt Synonym Gene Names	NR3C3; PR
UniProt Entry Name	PRGR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/progesterone-receptor-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-western-blot-elisa/329829>