

Phospho-Ser294 Progesterone Receptor Antibody
Affinity purified mouse monoclonal antibody
Catalog # AN1023

Specification

Phospho-Ser294 Progesterone Receptor Antibody - Product Information

Application	WB
Primary Accession	P06401
Reactivity	Human
Predicted	Monkey
Host	mouse
Clonality	monoclonal
Isotype	IgG1
Calculated MW	90/120 KDa

Phospho-Ser294 Progesterone Receptor Antibody - Additional Information

Gene ID	5241
Gene Name	PGR
Other Names	Progesterone receptor, PR, Nuclear receptor subfamily 3 group C member 3, PGR, NR3C3

Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser294 conjugated to KLH.

Dilution

WB~~ 1:1000

Format

Prepared by affinity purification using a protein G column.

Antibody Specificity

Specific for the ~90k PR-A isoform and the ~120k PR-B isoform phosphorylated at Ser294. Immunolabeling is blocked by the phosphopeptide used as the antigen but not by the corresponding dephosphopeptide.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Phospho-Ser294 Progesterone Receptor Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

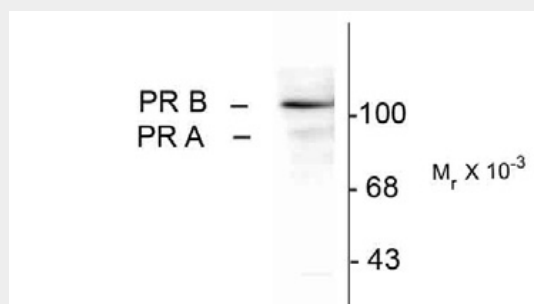
Blue Ice

Phospho-Ser294 Progesterone Receptor Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Phospho-Ser294 Progesterone Receptor Antibody - Images



Western blot of whole cell T47D lysate prepared from cells that had been incubated in the presence of the synthetic progestin agonist R5020 (500 nM) showing specific immunolabeling of the ~90k PR-A isoform and the ~120 PR-B isoform of the progesterone receptor phosphorylated at Ser294. The immunolabeling is blocked by the phosphopeptide used as the antigen (not shown).

Phospho-Ser294 Progesterone Receptor Antibody - Background

There is accumulating evidence to suggest that progesterone plays an essential role in the regulation of growth and differentiation of mammary glands and thus may play a key role in breast cancer (Edwards, 2005). The biological response to progesterone is mediated by two distinct forms of the human progesterone receptor (PR-A and PR-B forms). In most cell contexts, the B form functions as a transcriptional activator, whereas the A form functions as a transcriptional inhibitor of steroid hormones (Attia et al., 2000; Lin et al., 2003). Recently it has been demonstrated that there is differential hormone dependent regulation of the phosphorylation of the A and B forms of the receptor (Clemm et al., 2000). Treatment of T47D breast cancer cells with progestin agonist increases the phosphorylation of Ser 190 and Ser 294 with different kinetics. These phosphorylation events may differentially affect the transcriptional activity of the receptor.

Phospho-Ser294 Progesterone Receptor Antibody - References

Attia GR, Zeitoun K, Edwards D, Johns A, Carr BR, Bulun SE (2000) Progesterone receptor isoform A

but not B is expressed in endometriosis. *J Clin Endocrinol Metab* 85:2897-2902.

Clemm DL, Sherman L, Boonyaratankornkit V, Schrader WT, Weigel NL, Edwards DP (2000) Differential hormone-dependent phosphorylation of progesterone receptor A and B forms revealed by a phosphoserine site-specific monoclonal antibody. *Mol Endocrinol* 14:52-65.

Edwards DP (2005) Regulation of signal transduction pathways by estrogen and progesterone. *Annu Rev Physiol* 67:335-376.

Lin VC, Woon CT, Aw SE, Guo C (2003) Distinct molecular pathways mediate progesterone-induced growth inhibition and focal adhesion. *Endocrinology* 144:5650-5657.