

# Anti-Progesterone Receptor antibody ab63605

★★★★★ [4 Abreviews](#) [10 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Anti-Progesterone Receptor antibody
<b>Description</b>	Rabbit polyclonal to Progesterone Receptor
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, ICC, ELISA, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic non-phosphopeptide derived from Human Progesterone Receptor around the phosphorylation site of serine 294 (G-R-S <sup>P</sup> -P-L).
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride</p> <p>Without Mg<sup>2+</sup> and Ca<sup>2+</sup></p>
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	ab63605 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab63605 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/500 - 1/1000.
ICC	★★★★★ (1)	Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration.
IHC-P	★★★★★ (2)	1/50 - 1/100.

## Target

### 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. Progesterone receptor isoform B (PRB) is involved activation of c-SRC/MAPK signaling on hormone stimulation.  
Isoform A: inactive in stimulating c-Src/MAPK signaling on hormone stimulation.  
Isoform 4: Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.

### Sequence similarities

Belongs to the nuclear hormone receptor family. NR3 subfamily.  
Contains 1 nuclear receptor DNA-binding domain.

### Domain

Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.

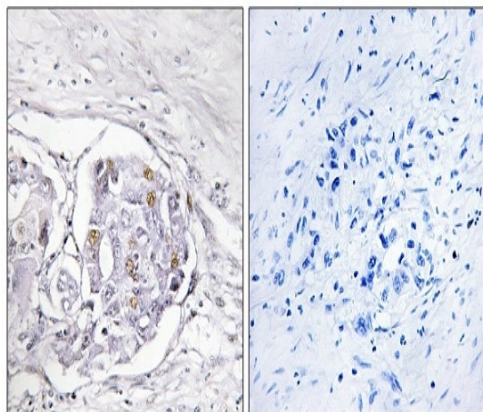
### Post-translational modifications

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.

### Cellular localization

Nucleus. Cytoplasm. 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; Mitochondrion outer membrane and Nucleus. Cytoplasm. Mainly nuclear.

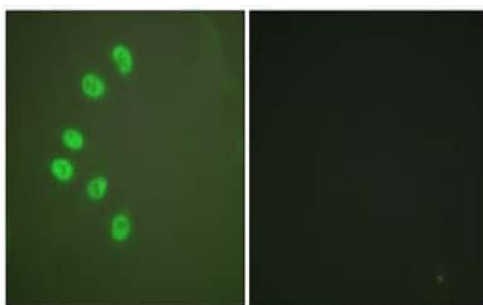
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody (ab63605)

Paraffin-embedded human liver carcinoma tissue stained for Progesterone Receptor with ab63605 at 1/50 dilution in immunohistochemical analysis.

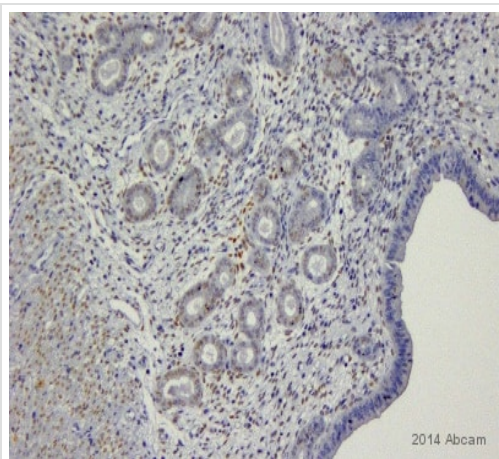
In the right-hand panel the sample is incubated with the immunizing peptide.



Peptide - +

Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody (ab63605)

ab63605, at a 1/500 dilution, staining Human Progesterone Receptor in A549 cells, with (+) or without (-) immunising peptide, by Immunofluorescence.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody (ab63605)

This image is courtesy of an Abreview submitted by Daniel Murta

ab63605 staining Progesterone Receptor in Mouse uterus tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde, permeabilized with 0.3% Triton X-100 and blocked with 2% BSA for 1 hour at room temperature; antigen retrieval was by heat mediation in Tris\_EDTA. Samples were incubated with primary antibody (1/100) for 10 hours at 4°C. A HRP-conjugated goat anti-rabbit IgG polyclonal (1/100) was used as the secondary antibody.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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