

Product datasheet

# Anti-Progesterone Receptor (phospho S294) antibody ab61785

2 References 2 Images

Overview

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<b>Product name</b>	Anti-Progesterone Receptor (phospho S294) antibody
<b>Description</b>	Rabbit polyclonal to Progesterone Receptor (phospho S294)
<b>Host species</b>	Rabbit
<b>Specificity</b>	Detects endogenous levels of Progesterone receptor only when phosphorylated at serine 294.
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic phosphopeptide derived from human Progesterone Receptor around the phosphorylation site of serine 294 (GRS <sup>P</sup> PL)
<b>Positive control</b>	Extracts from Jurkat cells, treated with Etoposide (WB) Hela cells (IF)
<b>General notes</b>	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&amp;As.</p>

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride  Without Mg <sup>2+</sup> and Ca <sup>2+</sup>
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Affinity purified from rabbit antiserum by affinity chromatography using epitope specific phosphopeptide. The antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab61785** 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.
WB		1/500 - 1/1000. Predicted molecular weight: 99 kDa.

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## Target

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<b>Function</b>	<p>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.</p> <p>Isoform A: inactive in stimulating c-Src/MAPK signaling on hormone stimulation.</p> <p>Isoform 4: Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.</p>
<b>Sequence similarities</b>	<p>Belongs to the nuclear hormone receptor family. NR3 subfamily.</p> <p>Contains 1 nuclear receptor DNA-binding domain.</p>
<b>Domain</b>	<p>Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.</p>
<b>Post-translational modifications</b>	<p>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</p>

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.

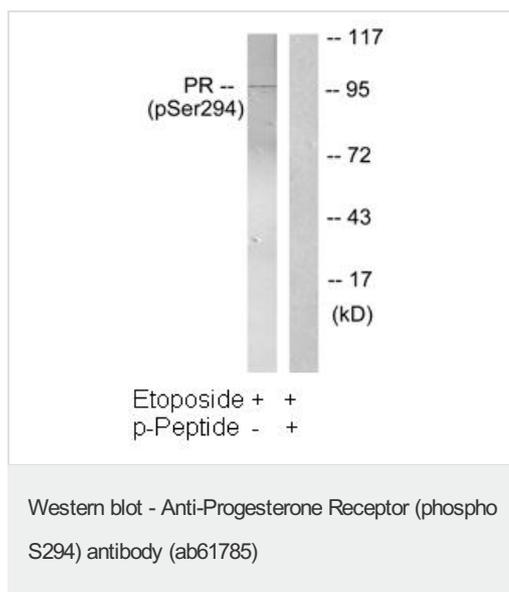
## Cellular localization

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



Immunofluorescence analysis of HeLa cells, using [ab61784](#) antibody at 1/500 dilution in the presence and absence of immunizing peptide.



**All lanes** : Anti-Progesterone Receptor (phospho S294) antibody (ab61785) at 1/500 dilution

**Lane 1** : extracts from Jurkat cells, treated with Etoposide (25uM, 60mins) with no immunizing peptide

**Lane 2** : extracts from Jurkat cells, treated with Etoposide (25uM, 60mins) with immunizing peptide

**Predicted band size:** 99 kDa

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

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