


Product datasheet

Anti-Progesterone Receptor antibody [PR484] ab187294

1 Image

Overview

Product name	Anti-Progesterone Receptor antibody [PR484]
Description	Mouse monoclonal [PR484] to Progesterone Receptor
Host species	Mouse
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Chimpanzee, Gorilla 
Immunogen	Recombinant full length protein corresponding to Human Progesterone Receptor aa 1 to the C-terminus. Database link: P06401 Run BLAST with Run BLAST with
Positive control	IHC-P: Human breast carcinoma tissue.
General notes	<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&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.05% BSA
Purity	Protein G purified
Purification notes	ab187294 was purified from Bioreactor Concentrate by Protein A/G.
Clonality	Monoclonal
Clone number	PR484

Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab187294 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

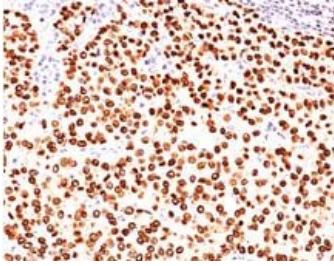
Application	Abreviews	Notes
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function	<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>
Sequence similarities	<p>Belongs to the nuclear hormone receptor family. NR3 subfamily.</p> <p>Contains 1 nuclear receptor DNA-binding domain.</p>
Domain	<p>Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.</p>
Post-translational modifications	<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 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.</p> <p>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.</p> <p>Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294.</p> <p>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.</p>
Cellular localization	<p>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</p>

outer membrane and Nucleus. Cytoplasm. Mainly nuclear.

Images



Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human breast carcinoma tissue labeling Progesterone Receptor with ab187294 at 1 µg/ml.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [PR484] (ab187294)

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

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