

Product datasheet

Anti-Progesterone Receptor antibody [PR501] - BSA and Azide free ab269796

2 Images

Overview

Product name	Anti-Progesterone Receptor antibody [PR501] - BSA and Azide free
Description	Mouse monoclonal [PR501] to Progesterone Receptor - BSA and Azide free
Host species	Mouse
Specificity	ab187296 is specific to Progesterone Receptor and shows minimal cross-reaction with other members of the family.
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Human Progesterone Receptor. Database link: P06401
Positive control	T47D cell lysate; Human breast and Human invasive ductal carcinoma tissues.
General notes	<p>ab269796 is a carrier free version of ab187296.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <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 Constituent: PBS
Carrier free	Yes
Purity	Protein G purified
Clonality	Monoclonal
Clone number	PR501
Isotype	IgG1
Light chain type	kappa

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab269796 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 0.5 - 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 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.</p> <p>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,</p>

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.

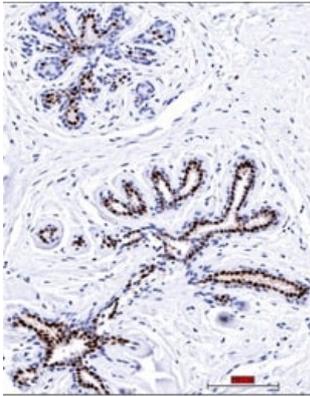
Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294.

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.

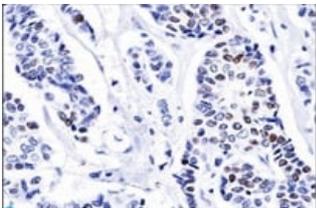
Images



Immunohistochemical analysis of paraffin-embedded Human breast tissue labeling Progesterone Receptor with [ab187296](#) at 1 µg/ml.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab187296](#)).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody ([ab269796](#))



Immunohistochemical analysis of paraffin-embedded Human invasive ductal carcinoma tissue labeling Progesterone Receptor with [ab187296](#) at 1 µg/ml.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab187296](#)).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody ([ab269796](#))

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