abcam

Product datasheet

Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free ab236222

Recombinant RabMAb

8 Images

Overview

Product name	Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free
Description	Rabbit monoclonal [SP42] to Progesterone Receptor - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment within Progesterone Receptor aa 400-550. The exact sequence is proprietary.
Positive control	IHC-P: Human breast carcinomaFlow Cyt: T-47D Cells ICC/IF: T-47D cells
General notes	FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com. Ab236222 is the carrier-free version of ab101688. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab236222 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough. Abcam is leading the way with our range of recombinant antibodies, knockout-validated

antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & 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.

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&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A/G purified
Purification notes	Purified from TCS by protein A/G.
Clonality	Monoclonal
Clone number	SP42
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab236222** in the following tested applications.

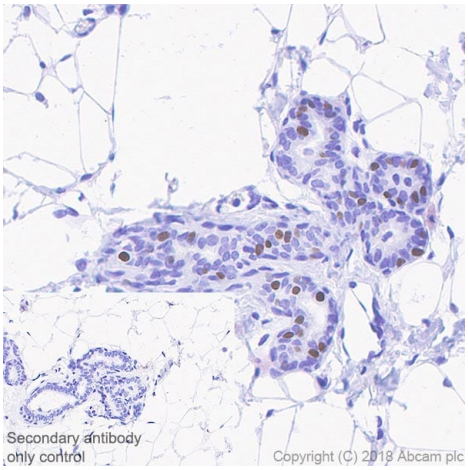
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Boil tissue section in 10mM citrate buffer, pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Incubate primary antibody for 30 minutes at room temperature.
ICC/IF		1/100.
Flow Cyt		Use at an assay dependent concentration.

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 homone- 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.

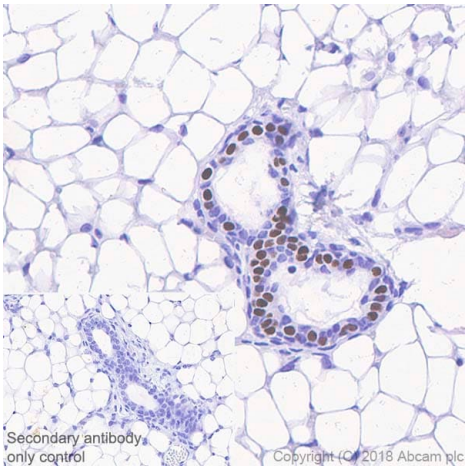
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat breast tissue sections labeling Progesterone Receptor with ab101688 at 1/00 dilution (0.61 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on rat breast, performed on a Leica Biosystems BOND™ RX instrument.

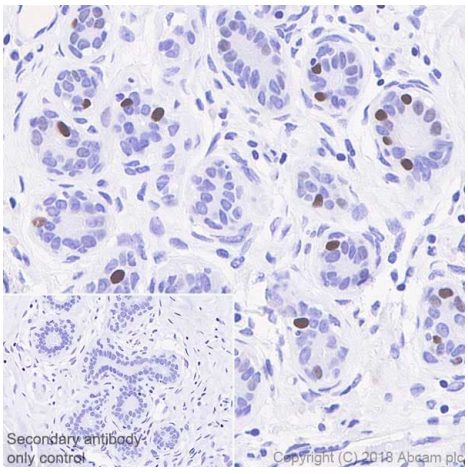
The section was incubated with ab101688 for 30 mins at room temperature. This image was generated using ab101688, the same clone, but with a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

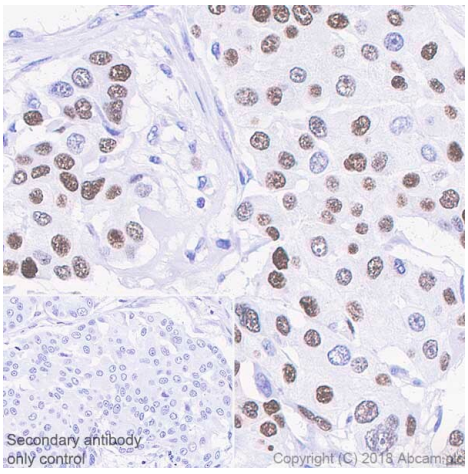
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse breast tissue sections labeling Progesterone Receptor with ab101688 at 1/00 dilution (0.61 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on mouse breast, performed on a Leica Biosystems BOND™ RX instrument.

The section was incubated with ab101688 for 30 mins at room temperature. This image was generated using ab101688, the same clone, but with a different buffer formulation.



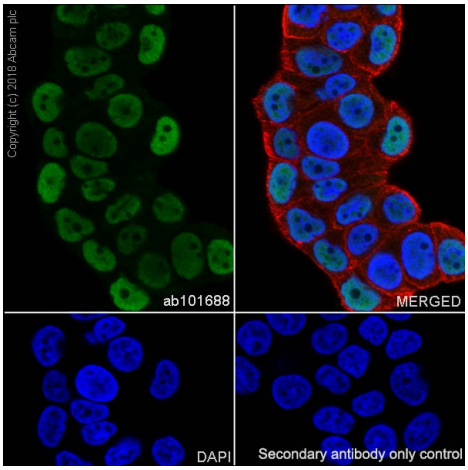
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedde sections) analysis of Human breast tissue sections labeling Progesterone Receptor with ab101688 at 1/00 dilution (0.61 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Sporadically nuclear staining on human breast, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab101688 for 30 mins at room temperature. This image was generated using ab101688, the same clone, but with a different buffer formulation.



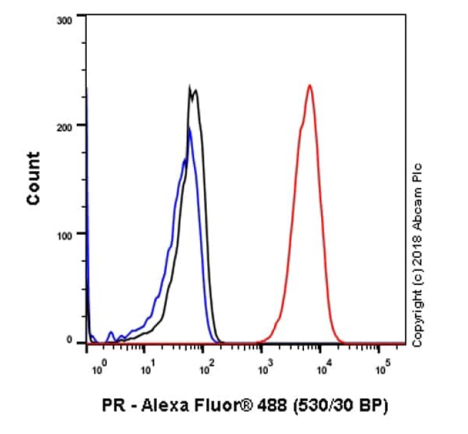
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast cancer tissue sections labeling Progesterone Receptor with ab101688 at 1/00 dilution (0.61 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Nuclear staining on human breast cancer, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab101688 for 30 mins at room temperature. This image was generated using ab101688, the same clone, but with a different buffer formulation.



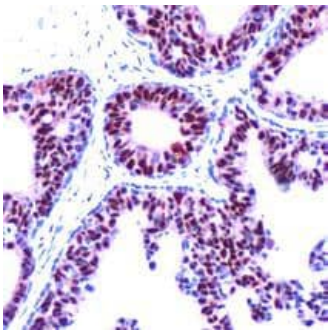
Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

Immunocytochemistry/ Immunofluorescence analysis of T-47D (human ductal breast epithelial tumor epithelial cell) cells labeling Progesterone Receptor with purified ab101688 at 1:100 (2.66 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236222)



Flow Cytometry - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

Flow Cytometry analysis of T-47D (human ductal breast epithelial tumor epithelial cell) cells labeling Progesterone Receptor with purified ab101688 at 1:260 dilution (1.02 µg/ml) - Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) - Black. Unlabeled control - Blue.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236222)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

ab101688, at a 1/400 dilution, staining Progesterone Receptor in formalin fixed, paraffin embedded Human breast carcinoma by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab101688).

Anti-Progesterone Receptor antibody [SP42] - BSA and Azide free (ab236222)

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