abcam

Product datasheet

# Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free ab239793

重组 RabMAb

8 图像

## 概述

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| **产品名称** | Anti-Progesterone Receptor抗体[SP2] - BSA and Azide free |
| **描述** | 兔单克隆抗体[SP2] to Progesterone Receptor - BSA and Azide free |
| **宿主** | Rabbit |
| **经测试应用** | **适用于:** Flow Cyt, mIHC, ICC/IF, IHC-P |
| **种属反应性** | **与反应:** Human<br>**预测可用于:** Rat, Rabbit |
| **免疫原** | Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. |
| **表位** | Amino acids 412-526 |
| **阳性对照** | Breast carcinomas IHC-P: Human breast carcinoma tissue. ICC/IF: T-47D cells Flow Cyt: T-47D cells mIHC: Human mammary gland tissue sections, Human triple-positive breast carcinoma tissue sections |
| **常规说明** | ab239793 is the carrier-free version of **ab16661**.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production |

For more information **see here**.

**This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.**

## 性能

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| **形式** | Liquid |
| **存放说明** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **存储溶液** | pH: 7.20<br>Constituent: PBS |
| **无载体** | **是** |
| **纯度** | Protein A purified |
| **克隆** | 单克隆 |
| **克隆编号** | SP2 |
| **同种型** | IgG |

## 应用

**The Abpromise guarantee** **Abpromise™承诺保证使用**ab239793**于以下的**经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|---|---|---|
| **Flow Cyt** | | Use at an assay dependent concentration.<br>**ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |
| **mIHC** | | 1/6000. |
| **ICC/IF** | | Use at an assay dependent concentration. |
| **IHC-P** | | Use at an assay dependent concentration.<br>Staining of formalin-fixed tissues is required by boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at RT for 20 min. |

## 靶标

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| **功能** | 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.<br>Isoform A: inactive in stimulating c-Src/MAPK signaling on hormone stimulation.<br>Isoform 4: Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone. |

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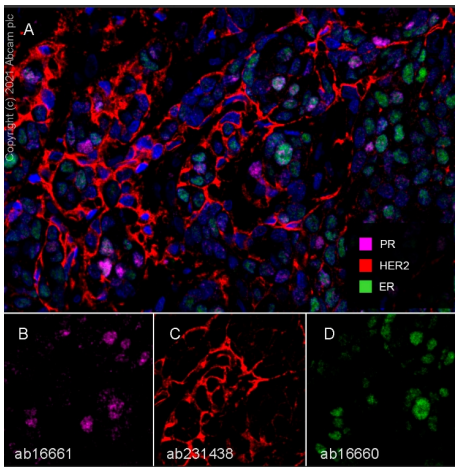
| **序列相似性** | Belongs to the nuclear hormone receptor family. NR3 subfamily.<br>Contains 1 nuclear receptor DNA-binding domain. |
| **结构域** | Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain. |
| **翻译后修饰** | Phosphorylated on multiple 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.<br>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.<br>Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294.<br>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. |
| **细胞定位** | 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. |

## 图片




Multiplex immunohistochemistry - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

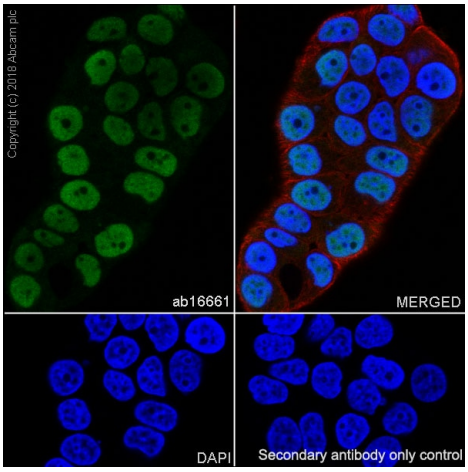
This data was developed using **ab16661**, the same antibody clone in a different buffer formulation.

Multiplex immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human triple-positive breast carcinoma tissue sections labeling Progesterone Receptor (PR) with **ab16661**, at a 1/6000 dilution ( 0.2 µg/ml). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins and Opal Polymer HRP Ms + Rb was used as the secondary antibody. DAPI was used as the nuclear counterstain.

Panel A: merged staining of anti-Progesterone Receptor (PR) (magenta; Opal™690), anti-HER2 (red; Opal™570) and anti-Estrogen Receptor (ER) (green; Opal™520) on human triple-positive breast carcinoma.
Panel B: anti-PR stained on nucleus of cancer cells.
Panel C: anti-HER2 stained on membrane of cancer cells.
Panel D: anti-ER stained on nucleus of cancer cells.

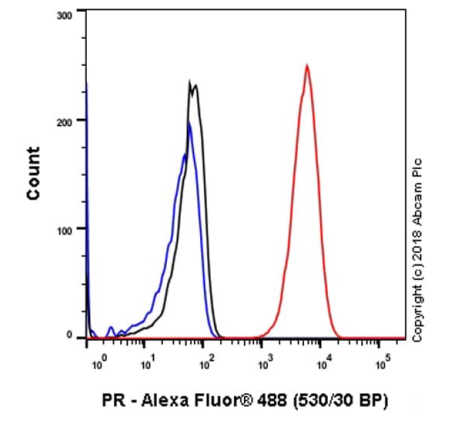
The section was incubated in three rounds of staining: in the order of **ab16661** for 30 mins, then **ab16660** and **ab231438** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



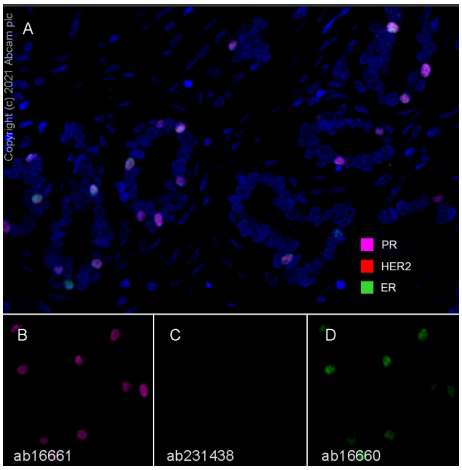

Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

Immunocytochemistry/ Immunofluorescence analysis of T-47D (human ductal breast epithelial tumor epithelial cell) cells labeling Progesterone Receptor with purified **ab16661** at 1:100 (2.28 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 (ab239793)




Flow Cytometry - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

Flow Cytometry analysis of T-47D (human ductal breast epithelial tumor epithelial cell) cells labeling Progesterone Receptor with purified **ab16661** at 1:220 dilution (1.04 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 (ab239793)




Multiplex immunohistochemistry - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

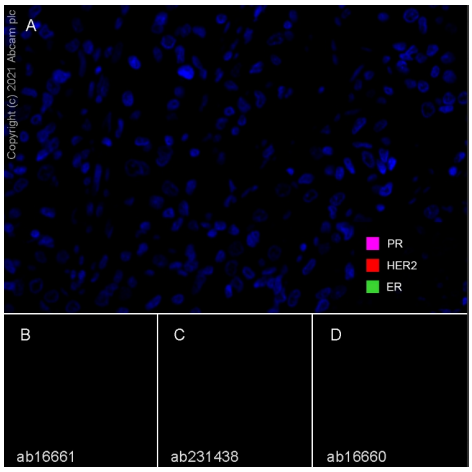
This data was developed using **ab16661**, the same antibody clone in a different buffer formulation.

Multiplex immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human mammary gland tissue sections labeling Progesterone Receptor (PR) with **ab16661**, at a 1/6000 dilution ( 0.2 µg/ml). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins and Opal Polymer HRP Ms + Rb was used as the secondary antibody. DAPI was used as the nuclear counterstain.

Panel A: merged staining of anti-Progesterone Receptor (PR) (magenta; Opal™690), anti-HER2 (red; Opal™570) and anti-Estrogen Receptor (ER) (green; Opal™520) on human mammary gland.
Panel B: anti-PR stained on nucleus of some ductal cells.
Panel C: anti-HER2 stained on no cells.
Panel D: anti-ER stained on nucleus of some ductal cells.

The section was incubated in three rounds of staining: in the order of **ab16661** for 30 mins, then **ab16660** and **ab231438** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.




Multiplex immunohistochemistry - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

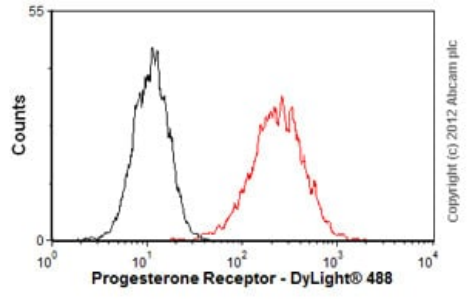
This data was developed using **ab16661**, the same antibody clone in a different buffer formulation.

Multiplex immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human triple-negative breast carcinoma tissue sections labeling Progesterone Receptor (PR) with **ab16661**, at a 1/6000 dilution ( 0.2 µg/ml). Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins and Opal Polymer HRP Ms + Rb was used as the secondary antibody. DAPI was used as the nuclear counterstain.

Panel A: merged staining of anti-Progesterone Receptor (PR) (magenta; Opal™690), anti-HER2 (red; Opal™570) and anti-Estrogen Receptor (ER) (green; Opal™520) on human triple-negative breast carcinoma.
Panel B: anti-PR stained on no cells.
Panel C: anti-HER2 stained on no cells.
Panel D: anti-ER stained on no cells.

The section was incubated in three rounds of staining: in the order of **ab16661** for 30 mins, then **ab16660** and **ab231438** for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

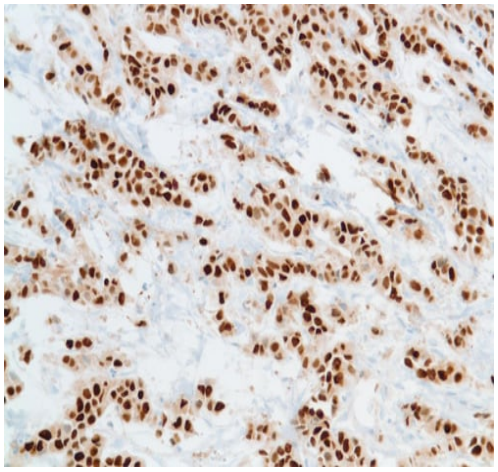
The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.




Flow Cytometry - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

Overlay histogram showing T47D cells stained with **ab16661** (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab16661**, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed.

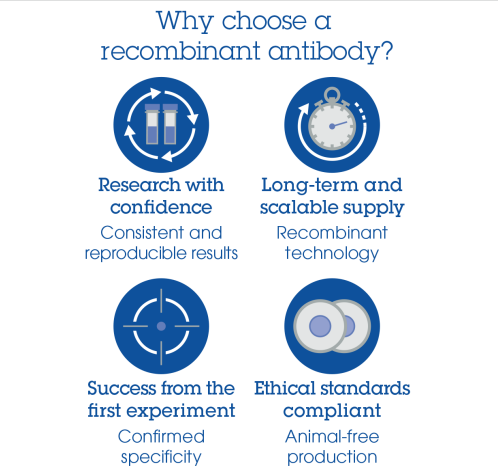
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab16661**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)

Immunohistochemistry analysis of human breast carcinoma tissue labelling SP2 with **ab16661**.

This data was developed using the same antibody clone in a different buffer formulation containing Tris buffered saline, BSA, and sodium azide (**ab16661**).




Anti-Progesterone Receptor antibody [SP2] - BSA and Azide free (ab239793)



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