abcam

Product datasheet

Anti-Progesterone Receptor antibody [SP2] ab16661

重组 RabMAb

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概述

产品名称	Anti-Progesterone Receptor抗体[SP2]
描述	兔单克隆抗体[SP2] to Progesterone Receptor
宿主	Rabbit
经测试应用	**适用于:** ICC/IF, IHC-P, mIHC, Flow Cyt
种属反应性	**与反应:** Human **预测可用于:** Rat, Rabbit
免疫原	Recombinant fragment. This information is considered to be commercially sensitive.
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	This product was switched from a hybridoma to recombinant production method on 13th November 2019. 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**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. **This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.**

性能

形式	Liquid
存放说明	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. Store In the Dark.
存储溶液	pH: 7.20

	Preservative: 0.1% Sodium azide Constituents: 1% BSA, PBS
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ab16661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
ICC/IF		1/100.
IHC-P	★★★★☆ (3)	1/400. 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.
mIHC		1/6000.
Flow Cyt		1/100. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

靶标

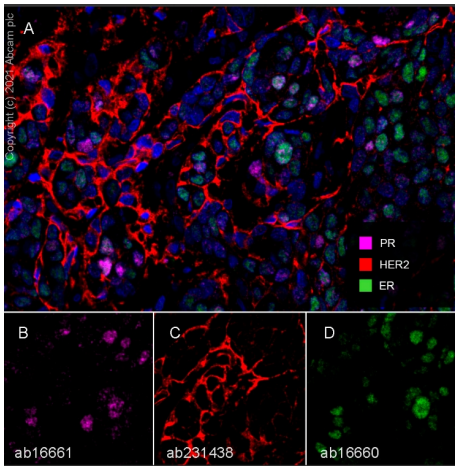
功能	The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Progesterone receptor isoform B (PRB) is involved activation of c-SRC/MAPK signaling on hormone stimulation. Isoform A: inactive in stimulating c-Src/MAPK signaling on hormone stimulation. Isoform 4: Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.
序列相似性	Belongs to the nuclear hormone receptor family. NR3 subfamily. 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.
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.

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



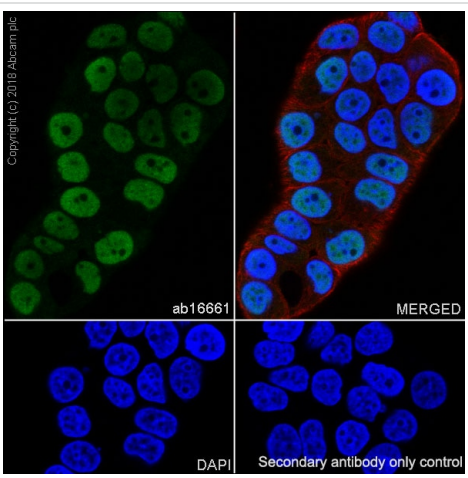
Multiplex immunohistochemistry - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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.

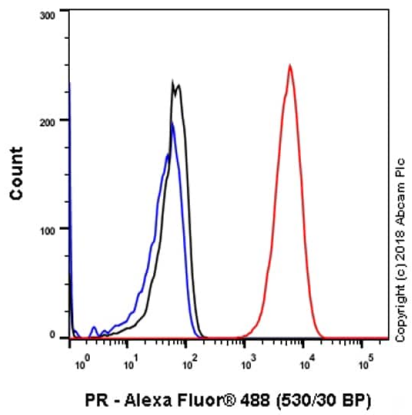
The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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.

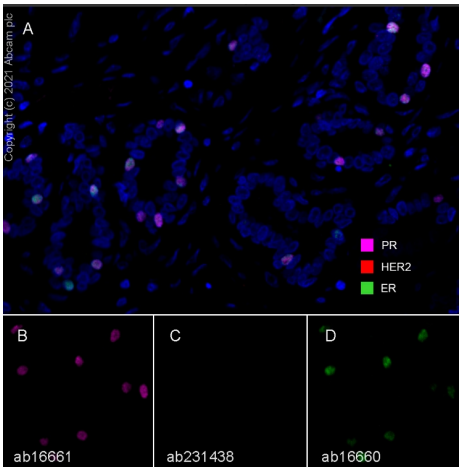
This image was generated from the hybridoma version.



Flow Cytometry - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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 image was generated from the hybridoma version.



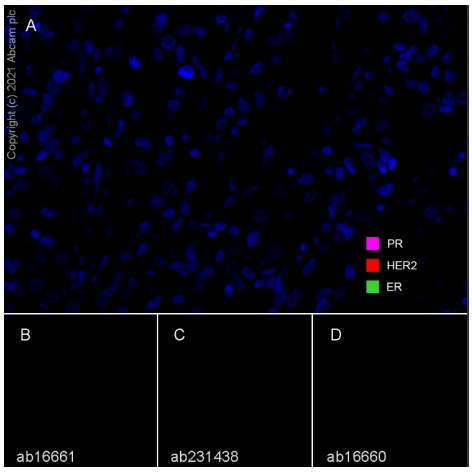
Multiplex immunohistochemistry - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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.



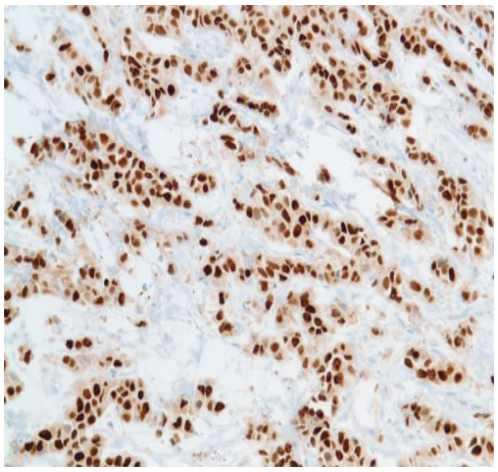
Multiplex immunohistochemistry - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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.

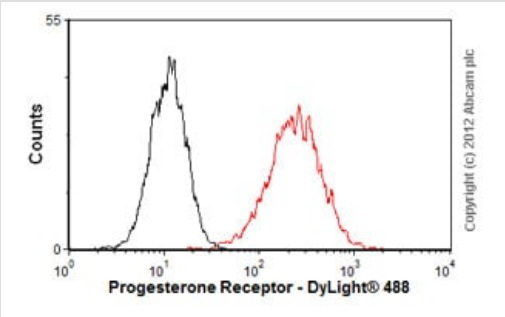
The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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

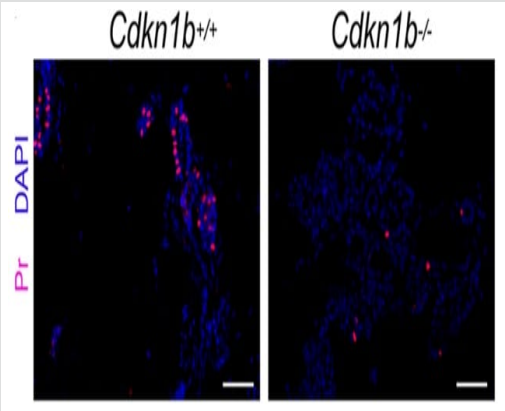
This image was generated from the hybridoma version.



Flow Cytometry - Anti-Progesterone Receptor antibody [SP2] (ab16661)

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 22ºC. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22ºC. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

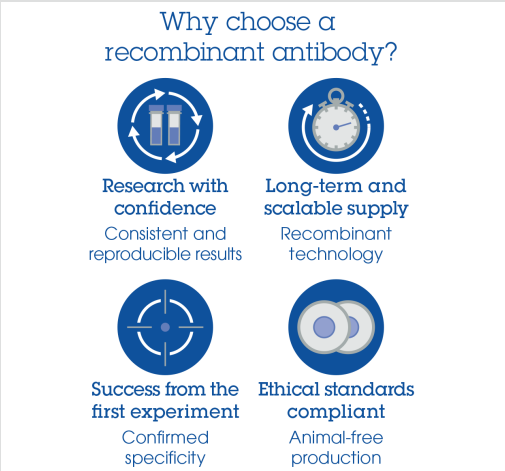
This image was generated from the hybridoma version.



Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [SP2] (ab16661)

Ding L, et al. (2019), PLOS Genetics, 15(3), e1008002. Fig 3D, DOI: 10.1371/journal.pgen.1008002. Reproduced under the Creative Commons licence. https://creativecommons.org/licenses/by/4.0/

Rat mammary epithelial cells stained for Pr (pink) using ab16661 at 1/100 dilution in ICC/IF.



Anti-Progesterone Receptor antibody [SP2]

(ab16661)

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