abcam

ab2765

Anti-Progesterone Receptor antibody [Alpha PR6]

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Full Length Protein corresponding to Chicken PGR. The exact immunogen used to generate this antibody is proprietary information. Database link P07812
Clone number	Alpha PR6
Purification technique	Affinity purification Protein G
Specificity	This antibody does not cross-react with estrogen receptor or glucocorticoid receptor.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	0.5 µg/cells for 6 µg/cells
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

WB

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information PGR

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The progesterone receptor (PR) also known as NR3C3 is a nuclear receptor that functions as a transcription factor in response to the hormone progesterone. This receptor has a mass of approximately 99 kDa and is expressed in tissues such as the reproductive organs including the uterus ovaries and mammary glands. It is also found in non-reproductive tissues like the brain and bone. The receptor has two main isoforms PR-A and PR-B which differ slightly in structure but have unique biological roles.
Biological function summary	The progesterone receptor plays a significant role in regulating gene expression related to reproductive processes. PR is not part of a larger complex by itself but interacts with various coactivators and corepressors to modulate transcription. In the uterus and mammary glands PR mediates the effects of progesterone by promoting cell proliferation and preparing tissues for pregnancy. In other systems PR also links to various metabolic and immunological pathways influencing cell cycle progression and immune response.
Pathways	Progesterone receptor activity is integrated within the reproductive hormone signaling pathways and the Wnt signaling pathway. The receptor interacts directly with key proteins such as estrogen receptor (ER) and steroid receptor coactivator (SRC) complexes which are pivotal in modulating response to hormonal signals. These interactions underline the essential role of PR in maintaining hormonal balance and regulating reproductive functions.
Associated diseases and disorders	The progesterone receptor associates with breast cancer and endometriosis. Aberrant expression or mutations in PR can contribute to the development and progression of breast cancer often linked with the estrogen receptor's influence. In endometriosis PR's altered functionality affects cellular response to progesterone contributing to tissue growth outside the uterus. These conditions also involve interactions with proteins like BRCA1 in breast cancer highlighting how PR connects to broader cellular and pathological networks.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

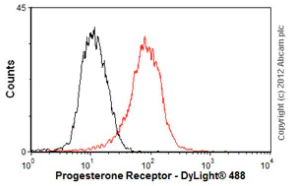
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Terms & Conditions.

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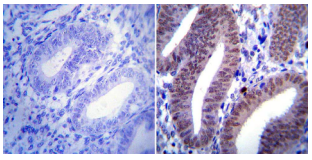
4 product images



Flow Cytometry - Anti-Progesterone Receptor antibody [Alpha PR6] (ab2765)

Progesterone Receptor Flow Cytometry staining using mouse Anti-Progesterone Receptor antibody

Overlay histogram showing T47D cells stained with ab2765 (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 (ab2765, 0.5µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

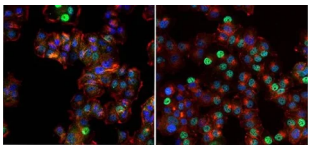


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [Alpha PR6] (ab2765)

Progesterone Receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Progesterone Receptor antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) was performed on human uterus tissue. Antigen retrieval was performed using 10mM sodium citrate followed by microwave treatment for 8-15 minutes. Endogenous peroxidases were blocked in 3% H202-methanol for 15 minutes and tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Cells were incubated with ab2765 (1:20) overnight in a humidified chamber. Tissues were washed in PBST and detection was performed using a secondary antibody conjugated to

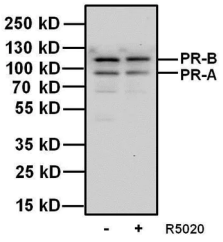
HRP. DAB staining buffer was applied and tissues were counterstained with hematoxylin and prepped for mounting. Images were taken at 40X magnification.



Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [Alpha PR6] (ab2765)

Progesterone Receptor Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Progesterone Receptor antibody

Immunocytochemistry/ Immunofluorescence analysis of T47D cells untreated (left) or stimulated with 100nm promegestone for 1 hour (right), labeling Progesterone Receptor with ab2765 (green). The cells were fixed with formalin for 15 minutes, permeabilized with 0.1% Triton X-100 in TBS for 10 minutes, and blocked with 3% Blocker BSA for 15 minutes at room temperature. Cells were stained with Anti-Progesterone Receptor antibody [Alpha PR6] - ChIP Grade (ab2765) at a dilution of 1/100 for 1 hour at 37C, and then incubated with a Alexa Fluor 488 goat anti-mouse IgG secondary antibody at a dilution of 1/1000 for 30 minutes at room temperature (both panels, green). Nuclei (both panels, blue) were stained with Hoechst 33342 dye.



Western blot - Anti-Progesterone Receptor antibody [Alpha PR6] (ab2765)

All lanes:
Western blot - Anti-Progesterone Receptor antibody [Alpha PR6] (ab2765) at 1 µg/mL

Lane 1:
T47D cell lysate untreated (-) at 20 µg

Lane 2:
T47D cell lysate stimulated (+) with 100 nm promegestone for 1 hour at 20 µg

Secondary

All lanes:
Goat anti-Mouse IgG-HRP at 1/2000 dilution

Predicted band size: 98 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.