abcam

ab267524

Alexa Fluor® 647 Anti-Progesterone Receptor antibody [SP2]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP2
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/2500
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	This product gave a positive signal in T47D fixed with 4% formaldehyde (10 min).

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. Depending on the isoform, progesterone receptor functions as a transcriptional activator or repressor. Isoform A. Ligand-dependent transdominant repressor of steroid hormone receptor transcriptional activity including repression of its isoform B, MR and ER. Transrepressional activity may involve recruitment of corepressor NCOR2. Isoform B. Transcriptional activator of several progesteron-dependent promoters in a variety of cell types. Involved in activation of SRC-dependent MAPK signaling on hormone stimulation. Isoform 4. Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.

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, Stable for 12 months at -20°C, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

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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

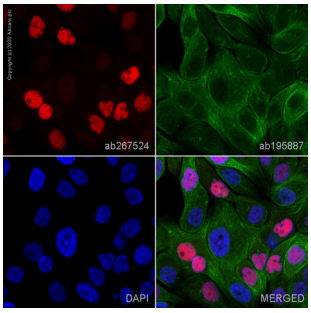
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

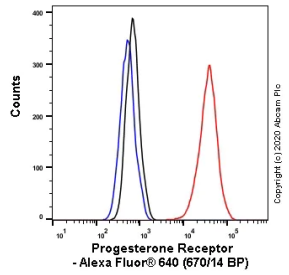
3 product images



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Progesterone Receptor antibody [SP2] (ab267524)

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

ab267524 staining Progesterone Receptor in T47D cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab267524 at 1/100 dilution (shown in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

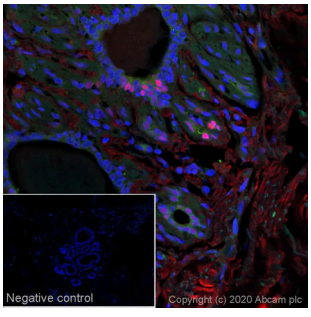


Flow Cytometry - Alexa Fluor® 647 Anti-Progesterone Receptor antibody [SP2] (ab267524)

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

Overlay histogram showing T47D cells stained with ab267524 (red line). The cells were fixed with 4 % formaldehyde (10 min) and then permeabilized with 0.1 % PBS-Triton X-100 for 15 min. The cells were incubated in 1x PBS containing 10 % normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab267524) (1x 10^6 in 100µl at 0.2 µg/ml (1/2500)) for 30 min at 22°C.
Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 647 (ab199093) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 40 mW Red laser (640nm) and 670/14 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-Progesterone Receptor antibody [SP2] (ab267524)

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

IHC image of Progesterone Receptor staining in a section of formalin-fixed paraffin-embedded normal human breast*.
The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6) in a Biocare Medical NxGen pressure cooker using retrieval settings of 110°C for 20 minutes. Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M (w/v) glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with ab267524 at 1/100 dilution (shown in red) and counterstained using ab195887, Mouse monoclonal

to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

For other IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antigen retrieval conditions, antibody concentrations and incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre.

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