abcam

ab32085

Anti-Progesterone Receptor antibody [YR85]

Anti-Progesterone Receptor antibody [YR85] (ab32085) is a rabbit monoclonal antibody detecting Progesterone Receptor in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 30 publications
- Trusted since 2006

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	YR85
Purification technique	Affinity purification Protein A
Specificity	This antibody recognises progesterone receptor. The antibody does not cross-react with other NR3 family members. Since the recognized epitope is near the N-terminal end of the protein, this product should only detect isoform B and not isoform A.
Dissociation constant	2.48 x 10^{-10} M
Concentration	0.087 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 - 1/250
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Not recommended

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

IP

Expected

Species	Human
Dilution info	1/150
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	0.2-5 µg/mL
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse
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. 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	Conditional Ambient
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

Notes

What is this antibody validated in?
Anti-Progesterone Receptor antibody [YR85] (ab32085) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of Progesterone Receptor?
Anti-Progesterone Receptor [YR85] (ab32085) specifically detects a band for Progesterone Receptor (UniProt: P06401) at a molecular weight of 99kDa.

Trusted by the scientific community
Anti-Progesterone Receptor [YR85] (ab32085) was first used in a scientific publication in 2006 and has been cited over 30 times in peer-reviewed journals.

Reviewed by scientists
Anti-Progesterone Receptor [YR85] (ab32085) has over 5 independent reviews from customers.

Other related products
We have a range of other formats of antibody clone [YR85] also available for your convenience: ab32085, Carrier free - ab206926, PE - ab303062, APC - ab303063, HRP - ab303064, Alkaline Phosphatase - ab308712, Alexa Fluor® 647 - ab310043, Alexa Fluor® 594 - ab310431, Alexa Fluor® 555 - ab311957, Alexa Fluor® 568 - ab312430, Alexa Fluor® 488 - ab313737

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

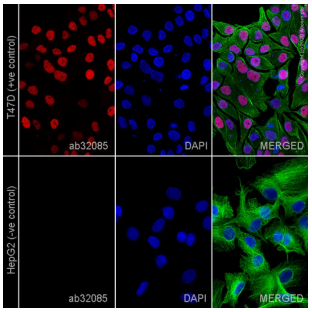
We do not recommend this combination. It is not covered by our product promise.

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.

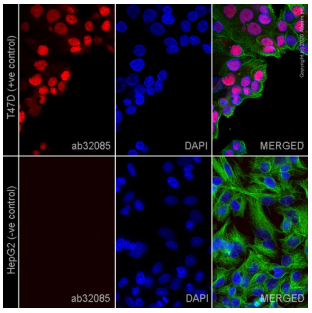
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [YR85] (ab32085)

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

Immunofluorescence staining of Recombinant Anti-Progesterone Receptor antibody [YR85] (ab32085) in T47D cells (+ve control) and HepG2 cells (-ve control). The cells were fixed with 4% paraformaldehyde (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 ab32085 at 0.2 µg/mL dilution and ab7291, Anti-alpha Tubulin antibody [DM1A], at 1/1000 dilution, followed by a further incubation at room temperature for 1h with Goat Anti-Rabbit IgG H&L (Alexa Fluor® 647) preadsorbed (ab150087) at 1/1000 (shown in red) and Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed (ab150117) at 1/1000 (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with the Perkin Elmer Operetta and a maximum intensity projection of confocal planes is shown.



Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [YR85] (ab32085)

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

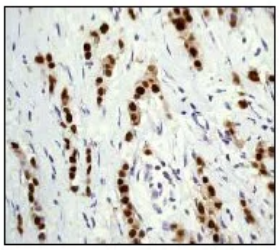
Immunofluorescence staining of Recombinant Anti-Progesterone Receptor antibody [YR85] (ab32085) in T47D cells (+ve control) and HepG2 cells (-ve control). The cells were fixed with 100% Methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab32085 at 0.2 µg/mL dilution and ab7291, Anti-alpha Tubulin antibody [DM1A], at 1/1000 dilution, followed by a further incubation at room temperature for 1h with Goat Anti-Rabbit IgG H&L (Alexa Fluor® 647) preadsorbed (ab150087) at 1/1000 (shown in red) and Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed (ab150117) at 1/1000 (shown in green). Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with the Perkin Elmer Operetta and a maximum intensity projection of confocal planes is shown.



Immunocytochemistry/ Immunofluorescence - Anti-Progesterone Receptor antibody [YR85] (ab32085)

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

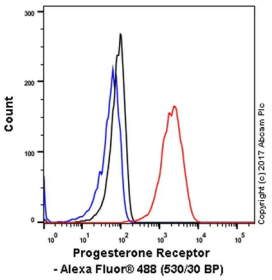
ICC/IF image of ab32085 stained DU145 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab32085 at 5µg/ml overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti- rabbit (ab96899) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Progesterone Receptor antibody [YR85] (ab32085)

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

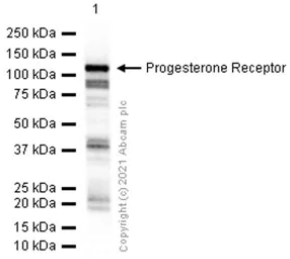
Immunohistochemical analysis of progesterone receptor expression in paraffin embedded human breast carcinoma, using 1/100 ab32085.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Progesterone Receptor antibody [YR85] (ab32085)

Progesterone Receptor Flow Cytometry (Intracellular) staining using rabbit Anti-Progesterone Receptor antibody

Intracellular Flow Cytometry analysis of T47D (human mammary gland ductal carcinoma) cells labeling Progesterone Receptor with purified ab32085 at 1/1100 dilution (1ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (ab172730) was used as the isotype control, Cell without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Western blot - Anti-Progesterone Receptor antibody [YR85] (ab32085)

Progesterone Receptor Western blot staining of T-47D (Human ductal breast epithelial tumor epithelial cell) whole cell lysate using rabbit Anti-Progesterone Receptor antibody

Blocking buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Progesterone Receptor antibody [YR85] (ab32085) at 1/2000 dilution

All lanes:
T-47D (Human ductal breast epithelial tumor epithelial cell) whole cell lysate at 15 µg

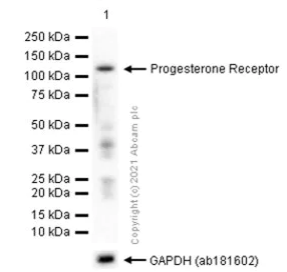
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 98 kDa

Observed band size: 118 kDa

Exposure time: 40s



Western blot - Anti-Progesterone Receptor antibody [YR85] (ab32085)

Progesterone Receptor Western blot staining of Human breast cancer lysate using rabbit Anti-Progesterone Receptor antibody

All lanes:
Western blot - Anti-Progesterone Receptor antibody [YR85] (ab32085) at 1/1000 dilution

All lanes:
Human breast cancer lysate at 15 µg

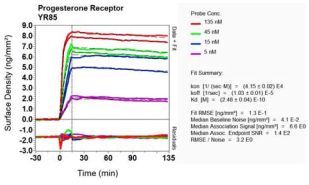
Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/20000 dilution

Predicted band size: 98 kDa

Observed band size: 118 kDa

Exposure time: 180s



OI-RD Scanning - Anti-Progesterone Receptor antibody [YR85] (ab32085)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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