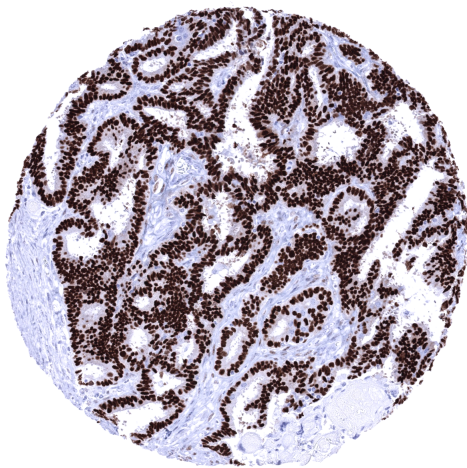


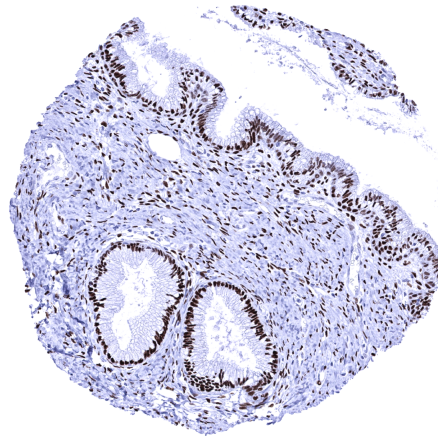
Anti-Progesterone Receptor Antibody MSVA-570R / Recombinant Rabbit monoclonal

Human SwissProt	P06401
Human Gene Symbol	PGR
Synonyms	R3C3, Nuclear receptor subfamily 3 group C member 3, PGR, PR, PRA, PRB, Progesterone receptor form A, Progesterone receptor form B
Specificity	Periostin
Immunogen	Recombinant fragment of human PGR protein
Isotype	Rabbit / IgG
Species Reactivity	Human
Localization	Nucleus

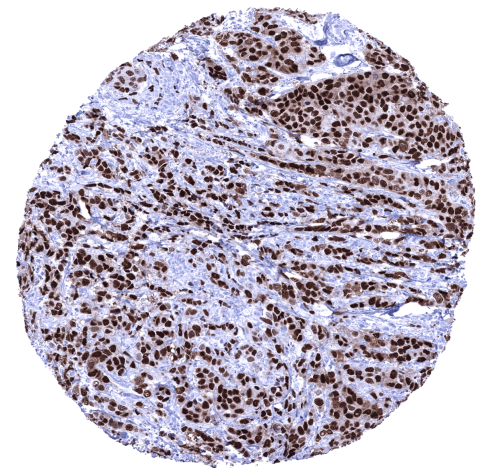
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Positive Control	Uterine cervix: almost all columnar epithelial cells, basal squamous epithelial cells and most of the stromal cells must show a strong nuclear staining with only minimal cytoplasmic staining.
Negative Control	Tonsil: PR immunostaining should be absent in all epithelial and non-epithelial cells.



Endometrioid carcinoma of the ovary depicting a strong PR immunostaining of all tumor cells.



Uterus, endocervix - Strong PR immunostaining in epithelial and stromal cells of the endocervix.



Invasive breast cancer of no special type (NST) with strong PR immunostaining in 100% of tumor cells.

Biology

The progesterone receptor (PR) is a nuclear receptor protein coded by the PGR gene residing on chromosome 11q22. It is activated by the steroid hormone progesterone. In the absence of progesterone its carboxyl terminal inhibits transcription of target genes. After binding to progesterone, a structural change of the PR protein terminates the inhibitory action, the protein dimerizes, enters the nucleus, binds to DNA and induces transcription of target genes. Progesterone antagonists prevent the structural reconfiguration. Progesterone and its receptor are key elements of female reproduction. In breast development, progesterone is involved in the formation of lobular-alveolar units. In human endometrium, progesterone directs glandular differentiation, stromal proliferation, and development of decidual cells. PR shares considerable sequence homology with the estrogen receptor (ER) in the DNA-binding central domain. The presence of a functional ER is required for PR synthesis in the cell. In normal tissues, the strongest expression of progesterone receptor (PR) is found in the female genital tract including endometrium, endocervix, myometrium, fallopian tube, ovary, and a fraction of the epithelial cells of the breast gland. A moderate to strong PR immunostaining also occurs in stromal cells of the prostate and the seminal vesicles as well as in smooth muscle cells in the aortic wall. An at least weak to moderate PR immunostaining is also regularly seen in islet cells and few other cells in the pancreas, epithelial cells of the cauda epididymis, as well as in a variable number of epithelial cells in the adenohypophysis. Other normal cell types can also express PR. The TCGA database on RNA expression in cancer has described highest levels of PR

expression in breast and endometrium cancer followed by ovarian and cervical cancer. Most other important tumor entities are described to be usually “PR negative”.

Potential Research Applications

- The diagnostic utility of PR expression analysis should be investigated in a large cohort of tumors from different entities.
- The clinical/biological significance of the rare ER-/PR+ breast cancers is unclear.
- Much is still unknown on the site-specific role of PR in various different tissues

Protocol Suggestions

Dilution: 1:50 ; pH 7,8 is optimal.

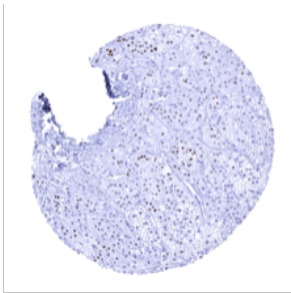
Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

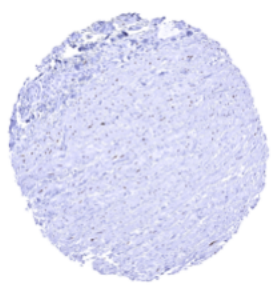
This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

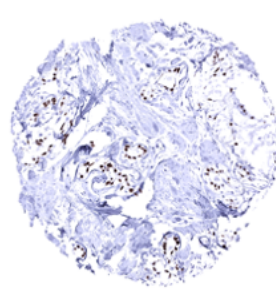
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



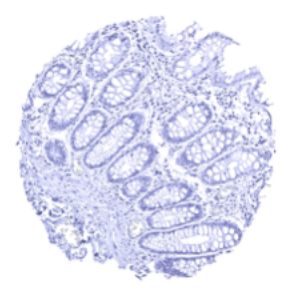
Adrenal gland - A variable, weak to moderate nuclear PR immunostaining can be found in subsets of adrenocortical cells (not in all samples).



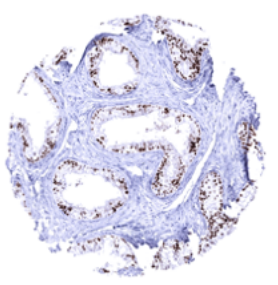
Aorta, media - A moderate to strong nuclear PR immunostaining can be found in a fraction of the smooth muscle cells of the aortic wall.



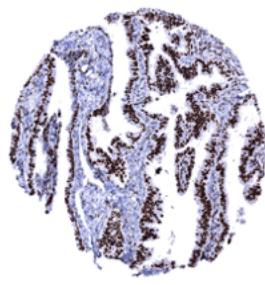
Breast - A moderate to strong PR positivity is seen in a fraction of the epithelial cells of the breast gland.



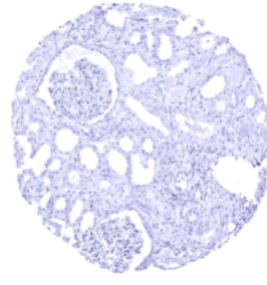
Colon descendens, mucosa



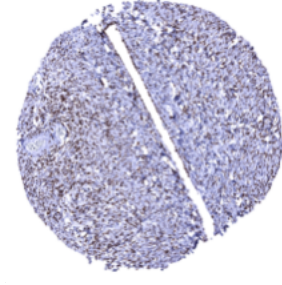
Epididymis - A moderate to strong PR immunostaining can be seen in epithelial cells of the cauda epididymis.



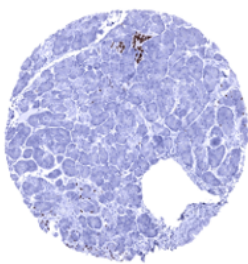
Fallopian tube, mucosa - A strong PR immunostaining is found in epithelial and stromal cells of the fallopian tube.



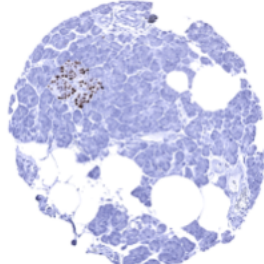
Kidney, cortex - A weak to moderate PR immunostaining is seen in subsets of glomerular, tubular and stromal cells of the kidney.



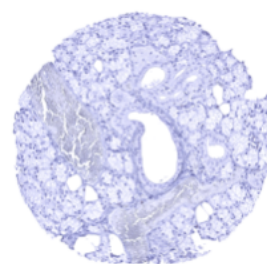
Ovary, stroma - A moderate nuclear PR immunostaining occurs in ovarian stroma cells.



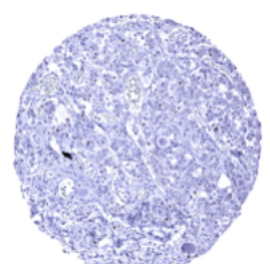
Pancreas - A moderate to strong PR immunostaining is seen in islet cells and few other cells in the pancreas.



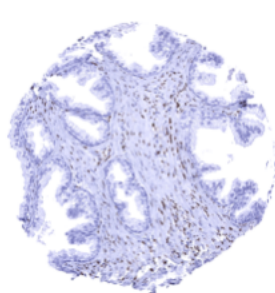
Pancreas - A moderate to strong PR immunostaining is seen in islet cells of the pancreas.



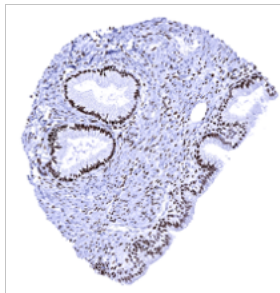
Parotid gland - A weak PR staining can sometimes be seen in a limited number of cells in salivary glands.



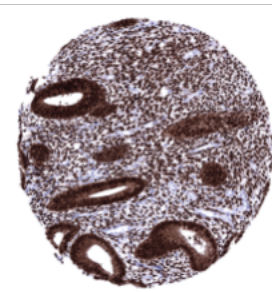
Pituitary gland, anterior lobe - A weak to moderate nuclear PR immunostaining can be found in a small subset of epithelial cells of the adenohypophysis.



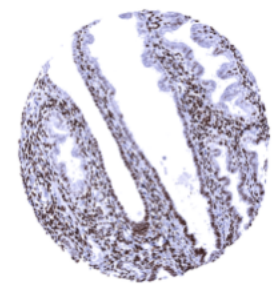
Prostate - A moderate to strong PR immunostaining occurs in stromal cells of the prostate.



Uterus, endocervix - A strong PR immunostaining is found in epithelial and stromal cells of the endocervix.



Uterus, endometrium (proliferation) - A very strong, predominantly nuclear PR immunostaining is found in epithelial and stromal cells of the endometrium.



Uterus, endometrium (secretion) - Nuclear PR immunostaining is strong in stromal cells but only weak to moderate in epithelial cells in this sample from the endometrium.