

**AM32853PU-T****Monoclonal Antibody to Progesterone receptor - Purified****Alternate names:**

NR3C3, Nuclear Receptor Subfamily 3 Group C Member 3, PGR, PR

**Quantity:**

20 µg

**Concentration:**

0.2 mg/ml

**Background:**

The progesterone receptor (also known as NR3C3) is a member of the steroid or nuclear hormone receptor superfamily family of proteins. Family members are involved in diverse physiological functions including embryonic development, cell differentiation, and homeostasis. The receptors function by binding to DNA in the nucleus and regulating the transcription of target genes. The progesterone receptor is activated by its ligand progesterone, which is a steroid hormone involved in the menstrual cycle, pregnancy and embryogenesis. Progesterone receptor expression status is commonly used as a marker for classifying breast cancers and for predicting prognosis and response to endocrine therapy. That is, antibody positive versus antibody negative tumors can have potential implications with respect to predicted outcome, treatment, or disease monitoring. Progesterone receptor is expressed as two major isoforms, PR-A (81 kDa) and PR-B (116 kDa). These isoforms are generated from alternative transcriptional start sites within the progesterone receptor gene. Both forms are ligand activated by progesterone although they differ in their relative ability to activate target gene transcription. Antibody to progesterone receptor is widely used to study breast and other progesterone receptor containing tissues such as the endometrium. Researchers are encouraged to consult the scientific literature for additional information regarding the use of antibody to measure progesterone receptor as part of assessing breast or other tumor types.

**Uniprot ID:**[P06401](#)**NCBI:**[9606](#)**GeneID:**[5241](#)**Host / Isotype:**

Mouse / IgG1

**Recommended Isotype**

SM10P (for use in human samples), AM03095PU-N

**Controls:****Clone:**

PR484

**Immunogen:**

Recombinant Human Progesterone Receptor protein.

**Format:****State:** Liquid purified IgG fraction from Bioreactor Concentrate**Purification:** Protein A/G Chromatography**Buffer System:** 10mM PBS**Preservatives:** 0.05% Sodium Azide**Stabilizers:** 0.05% BSA**Applications:****Western Blot:** 0.5-1 µg/ml for 2 hours at RT.**Immunohistochemistry on Frozen and Formalin-Fixed Paraffin Sections:** 0.5-1 µg/ml for 30 min at RT.

Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate

buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes.

**Positive Control:** T47-D Cells or Breast Cancers.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

**Molecular Weight:**

PR-A (81kDa) and PR-B (116kDa).

**Specificity:**

This Monoclonal antibody is specific to Progesterone Receptor and shows minimal cross-reaction with other members of the family. Progesterone receptor is expressed as two major isoforms, PR-A (81kDa) and PR-B (116kDa). Expression of PgR has been suggested to reflect a intact estrogen regulatory machinery and therefore, predict better clinical response to endocrine therapy than ER alone.

It is excellent for immunohistochemical staining of formalin/paraffin tissues.

**Cellular Localization:** Nucleus.

**Species Reactivity:**

**Tested:** Human.

**Storage:**

Store undiluted at 2-8°C.

Shelf life: one year from despatch.

**General Readings:**

1. Mote PA, Johnston JF, Manninen T, Tuohimaa P, Clarke CL. Detection of progesterone receptor forms A and B by immunohistochemical analysis. *J Clin Pathol.* 2001 Aug;54(8):624-30. PubMed PMID: 11477119.
2. Mylonas I, Makovitzky J, Friese K, Jeschke U. Immunohistochemical labelling of steroid receptors in normal and malignant human endometrium. *Acta Histochem.* 2009;111(4):349-59. doi: 10.1016/j.acthis.2008.11.012. Epub 2009 Feb 4. PubMed PMID: 19195687.
3. Cserni G, Francz M, Kálmán E, Kelemen G, Komjáthy DC, Kovács I, et al. Estrogen receptor negative and progesterone receptor positive breast carcinomas-how frequent are they? *Pathol Oncol Res.* 2011 Sep;17(3):663-8. doi: 10.1007/s12253-011-9366-y. Epub 2011 Jan 26. PubMed PMID: 21267685.
4. Press M, Spaulding B, Groshen S, Kaminsky D, Hagerty M, Sherman L, et al. Comparison of different antibodies for detection of progesterone receptor in breast cancer. *Steroids.* 2002 Aug;67(9):799-813. PubMed PMID: 12123792.

**Pictures:**

Formalin-Fixed, Paraffin-Embedded paraffin normal human breast carcinoma stained with Progesterone Receptor Antibody Cat.-No AM32853PU (Clone PR484).

