

## PGR Human

**Description:** Progesterone Receptor Human Recombinant (a.a. 412-562) expressed in E.coli, shows a 43 kDa SDS-PAGE (including GST tag). The PGR is purified by proprietary chromatographic techniques.

Catalog #: PRPS-542

**Synonyms:** Progesterone receptor, PR, Nuclear receptor subfamily 3 group C member 3, PGR, NR3C3.

For research use only.

**Source:** Escherichia Coli.

**Physical Appearance:** Sterile Filtered clear solution.

**Formulation:**

PGR in 50mM Tris-HCl, pH7.5, 10mM L-glutathione (reduced).

**Stability:**

Store vial at -20°C to -80°C. When stored at the recommended temperature, this protein is stable for 12 months. Please prevent freeze-thaw cycles.

**Usage:**

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

**Introduction:**

PGR belongs to the steroid receptor superfamily. PGR is located on chromosome 11q22. The progesterone receptor is an intracellular steroid receptor that specifically binds progesterone. The progesterone receptor (PgR) is an estrogen-regulated protein. PGR mediates the physiological effects of progesterone, which plays a fundamental role in reproductive events associated with establishing and maintaining pregnancy. PGR uses 2 distinct promoters and translation start sites in the first exon to produce 2 isoforms, A & B, which differ in their molecular weight (isoform A has 165 additional amino acids at the N-terminus). The progesterone receptor has an amino and a carboxyl terminal, the regulatory domain between them, a DNA binding domain, the hinge section, and the hormone binding domain. If no hormone is bound the carboxyl terminal inhibits transcription. Binding to a hormone stimulates a structural change which eliminates the inhibitory action. Following the progesterone binding to the receptor, restructuring with dimerization begins and the complex enters the nucleus where it binds to DNA. It has been proposed that expression of PgR determination indicates a responsive estrogen receptor (ER) pathway, and therefore, may predict likely response to endocrine therapy in human breast cancer. A number of studies have shown that PgR determination provides supplementary information to ER, both in predicting response to endocrine therapy and estimating survival. PgR has proved superior to ER as a prognostic indicator in some studies.

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