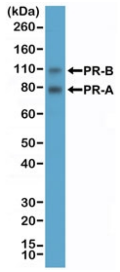
PR Antibody for WB / Progesterone Receptor Antibody for Western blot [clone RM357] (R20379)

Catalog No.	Formulation	Size
R20379-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

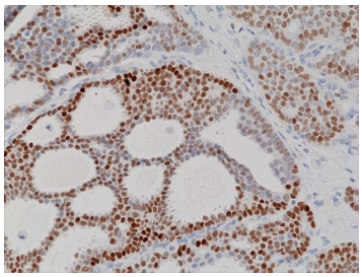
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM357
Purity	Protein A purified from animal origin-free supernatant
UniProt	P06401
Localization	Nuclear, cytoplasmic
Applications	Immunohistochemistry (FFPE): 1:100-1:200 Western blot: 1:1000-1:2000
Limitations	This PR/Progesterone Receptor antibody is available for research use only.



PR Antibody for WB analysis of Progesterone receptor / PGR by western blot. Human T-47D cell lysate was analyzed using PR Antibody for WB (clone RM357) at 1:2000 dilution. A band is detected at approximately 82-94 kDa corresponding to the predicted molecular weight of the PR-A isoform and a second band at approximately 99-120 kDa corresponding to the larger PR-B isoform of Progesterone receptor (PGR). The two bands reflect the well-characterized alternative transcription start sites that generate the PR-A and PR-B receptor isoforms commonly detected in hormone-responsive breast cancer cell lines such as T-47D.



IHC staining of FFPE human breast cancer tissue with recombinant PR/Progesterone Receptor antibody at 1:100.

Description

Progesterone receptor (PGR) is a ligand-activated nuclear hormone receptor encoded by the PGR gene and functions as a transcription factor that mediates cellular responses to progesterone signaling. PR Antibody for WB recognizes this steroid hormone receptor, which belongs to the nuclear receptor subfamily 3 group C member 3 (NR3C3) family of ligand-regulated transcription factors. The receptor is predominantly localized in the nucleus where it regulates gene transcription in response to progesterone binding, influencing reproductive biology, cellular differentiation, and hormone-dependent signaling pathways.

The PR Antibody for WB (clone RM357) is designed for western blot detection of Progesterone receptor protein in cell and tissue lysates. Western blot analysis is commonly used to evaluate Progesterone receptor expression levels and to distinguish the major receptor isoforms produced from the PGR gene. The two best characterized isoforms are PR-A and PR-B, which arise from alternative transcription start sites and differ in their N-terminal regulatory domains. These isoforms have distinct biological activities and often appear as separate bands in western blot experiments, making western blot analysis particularly valuable for studying progesterone receptor biology.

Progesterone receptor signaling plays an essential role in reproductive tissues such as uterus, ovary, and mammary gland, where hormone-dependent transcriptional regulation drives processes including ovulation, implantation, and mammary gland development. Because of this central role in hormone signaling, Progesterone receptor expression is frequently analyzed in breast cancer and other hormone-responsive tumors. Western blot detection of PGR protein provides a useful method for examining receptor expression levels, evaluating receptor isoform patterns, and monitoring signaling pathway changes in hormone-responsive cell models.

Western blot experiments targeting Progesterone receptor typically detect multiple protein species corresponding to the PR-A and PR-B isoforms, which differ in size due to the presence or absence of an N-terminal activation domain. In many experimental systems, the receptor may also appear as slightly shifted bands due to phosphorylation events that occur following hormone stimulation. These phosphorylation-dependent mobility changes are commonly observed in western blot analysis and reflect activation of the receptor and downstream transcriptional signaling.

Because Progesterone receptor functions as a transcriptional regulator, its expression and stability are tightly controlled by hormone signaling pathways, receptor turnover, and ligand-dependent activation. Western blot analysis therefore provides a valuable approach for monitoring receptor abundance, assessing hormone-dependent regulation, and evaluating receptor degradation or stabilization following pharmacological treatments. PR Antibody for WB is useful for detecting Progesterone receptor expression in research studies investigating steroid hormone signaling, endocrine regulation, and hormone-responsive cancer biology.

Application Notes

The stated application concentrations are suggested starting points. Titration of the PR Antibody for WB may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to C-terminus of human Progesterone Receptor was used as the immunogen for the PR Antibody for WB.

Storage

Store the PR/Progesterone Receptor antibody at -20oC.

Alternate Names

Progesterone receptor antibody, PGR antibody, NR3C3 antibody, Progesterone receptor A antibody, Progesterone receptor B antibody

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