

PRODUCT INFORMATION



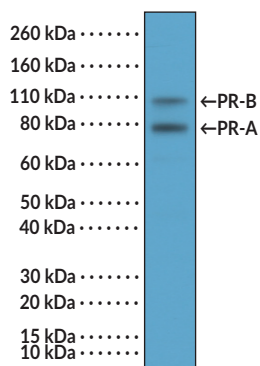
Progesterone Receptor (C-Term) Rabbit Monoclonal Antibody (Clone RM357)

Item No. 32308

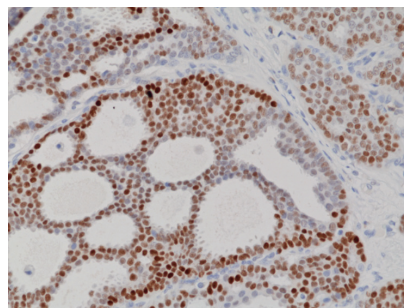
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	NR3C3, Nuclear Receptor Subfamily 3 Group C Member 3
Immunogen:	Peptide from the C-terminal region of the progesterone receptor
Cross Reactivity:	(+) Progesterone receptor α , progesterone receptor β
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM357
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:200 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of T47D cell lysate using Progesterone Receptor (C-Term) Rabbit Monoclonal Antibody (Clone RM357) at a dilution of 1:2,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue using Progesterone Receptor (C-Term) Rabbit Monoclonal Antibody (Clone RM357) at a dilution of 1:100.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

The progesterone receptor is a ligand-dependent transcription factor and member of the nuclear steroid hormone receptor family encoded by *PGR* in humans.¹ It is composed of a C-terminal ligand-binding domain, a central globular DNA-binding domain, and an intrinsically disordered N-terminal domain. It is expressed primarily in the CNS and female reproductive tissues, where it has roles in maintaining cognitive flexibility and reproductive biology, respectively, as well as in bone and the cardiovascular system.^{1,2} Two active isoforms of the progesterone receptor, N-terminally truncated progesterone receptor A and full-length progesterone receptor B, are produced by transcription of *PGR* using two promoters, and function as an inhibitor and activator of transcription, respectively. The inactive progesterone receptor is localized to the cytosol and assembled into an inactive multiprotein chaperone complex, which is essential for maintaining the progesterone receptor in a ligand-binding competent state. Progesterone binding to the inactive progesterone receptor induces a conformational change, dissociation of chaperones, dimerization, and nuclear translocation, resulting in modulation of gene transcription. Progesterone receptor levels are increased in uterine leiomyoma tissue compared with normal myometrium in patients with uterine fibroids and progesterone receptor expression is associated with favorable overall survival and recurrence-free survival in patients with ovarian cancer.^{3,4} Cayman's Progesterone Receptor (C-Term) Rabbit Monoclonal Antibody (Clone RM357) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Grimm, S.L., Hartig, S.M., and Edwards, D.P. Progesterone receptor signaling mechanisms. *J. Mol. Biol.* **428(19)**, 3831-3849 (2016).
2. Scarpin, K.M., Graham, J.D., Mote, P.A., *et al.* Progesterone action in human tissues: Regulation by progesterone receptor (PR) isoform expression, nuclear positioning and coregulator expression. *Nucl. Recept. Signal.* **7**, e009 (2009).
3. Patel, B., Elguero, S., Thakore, S., *et al.* Role of nuclear progesterone receptor isoforms in uterine pathophysiology. *Hum. Reprod. Update* **21(2)**, 155-173 (2015).
4. Luo, H., Li, S., Zhao, M., *et al.* Prognostic value of progesterone receptor expression in ovarian cancer: A meta-analysis. *Oncotarget* **8(22)**, 36845-36856 (2017).

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