Progesterone Receptor(PR) (ABT-PR.1) Mouse mAb

CatalogNo: YM4940

Key Features

Host Species
- Mouse

Reactivity
- Human,Mouse,Rat,Rabbit,

Applications
- IHC,WB,IF,ELISA

MW
- 118kD (Calculated)

99kD (Observed)

Isotype
- IgG1,Kappa

Recommended Dilution Ratios

IHC 1:100-500
WB 1:500-2000
IF 1:100-500
ELISA 1:1000-5000

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Basic Information

Clonality	Monoclonal
Clone Number	ABT-PR.1

Immunogen Information

Immunogen	Synthesized peptide derived from human Progesterone Receptor(PR) AA range: 200-300
Specificity	The antibody can specifically recognize human PR protein, including PR-A and PR-B.

Target Information

Gene name PGR NR3C3

Protein Name Progesterone Receptor(PR)

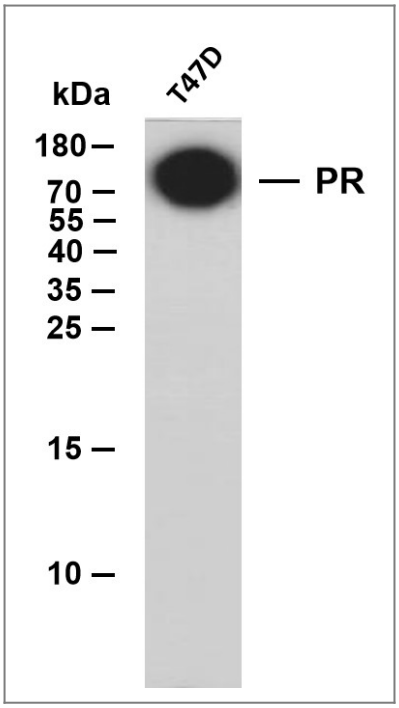
Organism	Gene ID	UniProt ID
Human	5241;	P06401;

Cellular Localization Nuclear

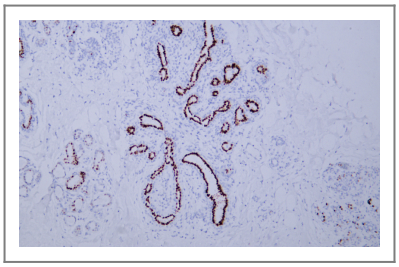
Tissue specificity In reproductive tissues the expression of isoform A and isoform B varies as a consequence of developmental and hormonal status. Isoform A and isoform B are expressed in comparable levels in uterine glandular epithelium during the proliferative phase of the menstrual cycle. Expression of isoform B but not of isoform A persists in the glands during mid-secretory phase. In the stroma, isoform A is the predominant form throughout the cycle. Heterogeneous isoform expression between the glands of the endometrium basalis and functionalis is implying region-specific responses to hormonal stimuli.

Function Domain:Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal steroid-binding domain.,Function:Isoform A is inactive in stimulating c-Src/MAPK signaling on hormone stimulation.,Function:The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Progesterone receptor isoform B (PRB) is involved activation of c-SRC/MAPK signaling on hormone stimulation.,online information:Progesterone receptor entry,PTM:Phosphorylated on multiple serine sites. Several of these sites are hormone-dependent. Phosphorylation on Ser-294 occurs preferentially on isoform B, is highly hormone-dependent and modulates ubiquitination and sumoylation on Lys-388. Phosphorylation on Ser-102 and Ser-345 also requires induction by hormone. Basal phosphorylation on Ser-81, Ser-162, Ser-190 and Ser-400 is increased in response to progesterone and can be phosphorylated in vitro by the CDK2-A1 complex. Increased levels of phosphorylation on Ser-400 also in the presence of EGF, heregulin, IGF, PMA and FBS. Phosphorylation at this site by CDK2 is ligand-independent, and increases nuclear translocation and transcriptional activity. Phosphorylation at Ser-162 and Ser-294, but not at Ser-190, is impaired during the G(2)/M phase of the cell cycle. Phosphorylation on Ser-345 by ERK1/2 MAPK is required for interaction with SP1.,PTM:Sumoylation is hormone-dependent and represses transcriptional activity. Sumoylation on all three sites is enhanced by PIAS3. Desumoylated by SENP1. Sumoylation on Lys-388, the main site of sumoylation, is repressed by ubiquitination on the same site, and modulated by phosphorylation at Ser-294.,PTM:Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294.,similarity:Belongs to the nuclear hormone receptor family.,similarity:Belongs to the nuclear hormone receptor family. NR3 subfamily.,similarity:Contains 1 nuclear receptor DNA-binding domain.,subcellular location:Mainly nuclear.,subcellular location:Nucleoplasmic shuttling is both homone- and cell cycle-dependent. On hormone stimulation, retained in the cytoplasm in the G(1) and G(2)/M phases.,subunit:Interacts with SMARD1 and UNC45A. Interacts with CUEDC2; the interaction promotes ubiquitination, decreases sumoylation, and repesses transcriptional activity. Interacts with PIAS3; the interaction promotes sumoylation of PR in a hormone-dependent manner, inhibits DNA-binding, and alters nuclear export. Interacts with SP1; the interaction requires ligand-induced phosphorylation on Ser-345 by ERK1/2 MAPK.,

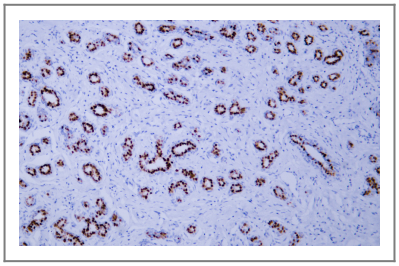
Validation Data



Whole cell lysates were separated by 15% SDS-PAGE, and the membrane was blotted with anti-PR(ABT-PR.1)antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: T47D



Human breast carcinoma tissue was stained with Anti-Progesterone Receptor (ABT-PR.1) Antibody



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Contact information

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Please scan the QR code to access additional product information: **Progesterone Receptor(PR) (ABT-PR.1) Mouse mAb**