




Product datasheet

Anti-Progesterone Receptor antibody ab35359

Overview

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|----------------------------|--|
| Product name | Anti-Progesterone Receptor antibody |
| Description | Sheep polyclonal to Progesterone Receptor |
| Specificity | Other antibodies raised to sequences in this area are reactive with both activated and unactivated forms of the receptor and have given predominantly cytoplasmic staining before activation and predominantly nuclear staining after activation. |
| Tested applications | Suitable for: ELISA, WB |
| Species reactivity | Reacts with: Human Predicted to work with: Mouse, Rat, Rabbit, Cow  |
| Immunogen | Synthetic peptide: GLPQVYPPYLNLRP conjugated to KLH, corresponding to amino acids 533-547 from the hypervariable region of Human Progesterone Receptor <div style="display: flex; justify-content: space-around;">  Run BLAST with  Run BLAST with </div> |

Properties

| | |
|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles. |
| Storage buffer | Preservative: 0.1% Sodium Azide Constituents: PBS, pH 7.2 |
| Purity | Protein G purified |
| Clonality | Polyclonal |
| Isotype | IgG |

Applications

Our [Abpromise guarantee](#) covers the use of **ab35359** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|---|--|-------|
| ELISA | | |
| WB | | |
| Application notes | <p>ELISA: 1/50 - 1/400. Use in a simple ELISA with 1 µg of unconjugated peptide coated per well, with alkaline phosphatase conjugated anti-sheep for detection. All incubations at 18°C using pNPP substrate, with OD measurements at 405 nm.</p> <p>WB: Use at an assay dependent dilution. Predicted molecular weight: 99 kDa.</p> <p>Not yet tested in other applications.</p> <p>Optimal dilutions/concentrations should be determined by the end user.</p> | |
| Target | | |
| Function | <p>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.</p> <p>Isoform A: inactive in stimulating c-Src/MAPK signaling on hormone stimulation.</p> <p>Isoform 4: Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.</p> | |
| Sequence similarities | <p>Belongs to the nuclear hormone receptor family. NR3 subfamily.</p> <p>Contains 1 nuclear receptor DNA-binding domain.</p> | |
| Domain | <p>Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.</p> | |
| Post-translational modifications | <p>Phosphorylated on multiple serine sites. Several of these sites are hormone-dependent.</p> <p>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.</p> <p>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.</p> <p>Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294.</p> <p>Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane targeting and for rapid intracellular signaling via ERK and AKT kinases and cAMP generation.</p> | |
| Cellular localization | <p>Nucleus. Cytoplasm. Nucleoplasmic shuttling is both hormone- and cell cycle-dependent. On hormone stimulation, retained in the cytoplasm in the G(1) and G(2)/M phases; Mitochondrion outer membrane and Nucleus. Cytoplasm. Mainly nuclear.</p> | |

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