**Product datasheet**

**Anti-Progesterone Receptor antibody [EPR5489] ab133526**

**Overview**

**Product name**  
Anti-Progesterone Receptor antibody [EPR5489]

**Description**  
Rabbit monoclonal [EPR5489] to Progesterone Receptor

**Host species**  
Rabbit

**Tested applications**  
Suitable for: WB  
Unsuitable for: Flow Cyt, ICC, IHC-P or IP

**Species reactivity**  
Reacts with: Mouse, Rat, Human

**Immunogen**  
Synthetic peptide corresponding to Human Progesterone Receptor aa 900-1000 (C terminal).  
Database link: P06401

**Positive control**  
WB: MDA-MB-435, HeLa, and T47-D cell lysates. Human, rat and mouse brain tissue lysates.

**General notes**

> Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMab® patents](#).

> This product is a recombinant rabbit monoclonal antibody.

**Properties**

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

**Storage buffer**  

<table>
<thead>
<tr>
<th>pH</th>
<th>7.40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservative</td>
<td>0.01% Sodium azide</td>
</tr>
<tr>
<td>Constituents</td>
<td>59% PBS, 40% Glycerol, 0.05% BSA</td>
</tr>
</tbody>
</table>

**Purity**  
Protein A purified

**Clonality**  
Monoclonal

**Clone number**  
EPR5489

**Isotype**  
IgG
Application notes

Is unsuitable for Flow Cyt, ICC, IHC-P or IP.

Target

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.

Isoform A: inactive in stimulating c-Src/MAPK signaling on hormone stimulation.

Isoform 4: Increases mitochondrial membrane potential and cellular respiration upon stimulation by progesterone.

Sequence similarities

Belongs to the nuclear hormone receptor family. NR3 subfamily.

Contains 1 nuclear receptor DNA-binding domain.

Domain

Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.

Post-translational modifications

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.

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.

Ubiquitination is hormone-dependent and represses sumoylation on the same site. Promoted by MAPK-mediated phosphorylation on Ser-294.

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.

Cellular localization

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.

Applications

Our Abpromise guarantee covers the use of ab133526 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000 - 1/10000</td>
<td>Detects a band of approximately 118 kDa (predicted molecular weight: 98 kDa).</td>
</tr>
</tbody>
</table>

Application notes

Is unsuitable for Flow Cyt, ICC, IHC-P or IP.
All lanes: Anti-Progesterone Receptor antibody [EPR5489] (ab133526) at 1/1000 dilution (Purified)

Lane 1: MDA-MB-435S (Human mammary gland ductal carcinoma melanocyte) whole cell lysates
Lane 2: Human brain lysates
Lane 3: Mouse brain lysates
Lane 4: Rat brain lysates

Lysates/proteins at 15 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 98 kDa
Observed band size: 118 kDa

why is the actual band size different from the predicted?

We are unsure how to define the extra bands.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support
- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions
- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors