# Product datasheet

## Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] (PE) ab223958

### Overview

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] (PE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rabbit monoclonal [EPR6293] to Cytochrome P450 17A1/CYP17A1 (PE)</td>
</tr>
<tr>
<td>Host species</td>
<td>Rabbit</td>
</tr>
<tr>
<td>Conjugation</td>
<td>PE. Ex: 488nm, Em: 575nm</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: Flow Cyt</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Synthetic peptide within Human Cytochrome P450 17A1/CYP17A1 aa 100-200. The exact sequence is proprietary. Database link: P05093</td>
</tr>
<tr>
<td>Positive control</td>
<td>Flow Cyt: HeLa cells</td>
</tr>
<tr>
<td>General notes</td>
<td>This product was previously labelled as Cytochrome P450 17A1</td>
</tr>
</tbody>
</table>

This product is a recombinant monoclonal antibody, which offers several advantages including:
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

### Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage instructions</td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at +4°C. Do Not Freeze. Store In the Dark.</td>
</tr>
<tr>
<td>Storage buffer</td>
<td>pH: 7.40</td>
</tr>
<tr>
<td></td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
</tbody>
</table>
Constituents: 1% BSA, PBS

Purity
Protein A purified

Clonality
Monoclonal

Clone number
EPR6293

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab223958 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>Flow Cyt</td>
<td>1/5000.</td>
<td>The cellular localisation of this product has been verified in ICC/IF.</td>
</tr>
</tbody>
</table>

Target

Function
Conversion of pregnenolone and progesterone to their 17-alpha-hydroxylated products and subsequently to dehydroepiandrosterone (DHEA) and androstenedione. Catalyzes both the 17-alpha-hydroxylation and the 17,20-lyase reaction. Involved in sexual development during fetal life and at puberty.

Pathway
Lipid metabolism; steroid biosynthesis.

Involvement in disease
Defects in CYP17A1 are the cause of adrenal hyperplasia type 5 (AH5) [MIM:202110]. AH5 is a form of congenital adrenal hyperplasia, a common recessive disease due to defective synthesis of cortisol. Congenital adrenal hyperplasia is characterized by androgen excess leading to ambiguous genitalia in affected females, rapid somatic growth during childhood in both sexes with premature closure of the epiphyses and short adult stature. Four clinical types: "salt wasting" (SW, the most severe type), "simple virilizing" (SV, less severely affected patients), with normal aldosterone biosynthesis, "non-classic form" or late onset (NC or LOAH), and "cryptic" (asymptomatic).

Sequence similarities
Belongs to the cytochrome P450 family.

Post-translational modifications
Phosphorylation is necessary for 17,20-lyase, but not for 17-alpha-hydroxylase activity.

Cellular localization
Membrane.

Images
Overlay histogram showing HeLa cells stained with ab223958 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab223958, 1/5000 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Phycoerythrin (ab209478) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Yellow/Green laser (561nm) and 586/15 bandpass filter.

This antibody gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.

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

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