abcam

Product datasheet

Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] - Low endotoxin, Azide free ab226009

Recombinant RabMAb

2 References 4 Images

Overview

Product name	Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EPR6293] to Cytochrome P450 17A1/CYP17A1 - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IP, WB, Flow Cyt (Intra) **Unsuitable for:** IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Human adrenal gland, SK-OV-3, HeLa and Jurkat lysates; HeLa cells
General notes	ab226009 is the carrier-free version of **ab125022**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. 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**. Our **Low endotoxin, azide-free formats** have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6293
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab226009 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
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Application notes Is unsuitable for IHC-P.

Target

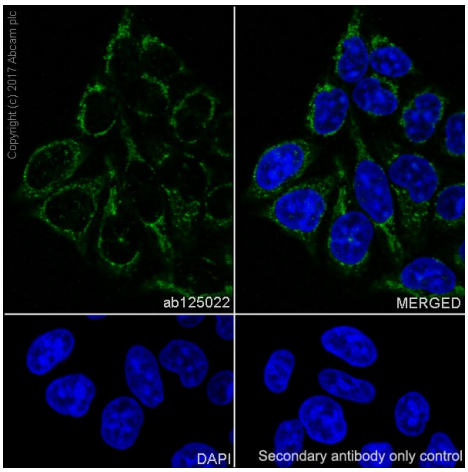
Function Conversion of pregnenolone and progesterone to their 17-alpha-hydroxylated products and subsequently to dehydroepiandrosterone (DHEA) and androstenedione. Catalyzes both the 17-alpha-hydroxylation and the 17,20-lyase reaction. Involved in sexual development during fetal life and at puberty.

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.

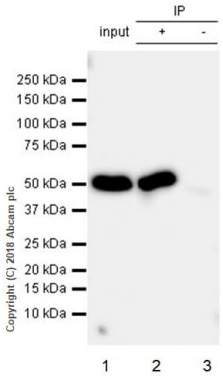
Images



Immunocytochemistry/ Immunofluorescence - Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] - Low endotoxin, Azide free (ab226009)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Cytochrome P450 17A1/CYP17A1 with Purified **ab125022** at 1:100 dilution (3.4 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with none. Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

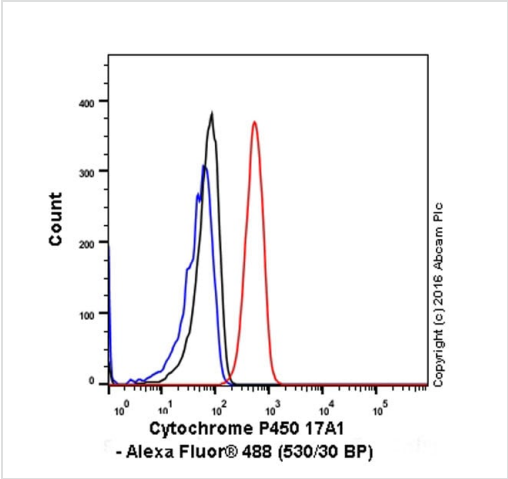
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125022**).



Immunoprecipitation - Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] - Low endotoxin, Azide free (ab226009)

ab125022 (purified) at 1:30 dilution (2µg) immunoprecipitating Cytochrome P450 17A1/CYP17A1 in Human fetal heart lysate.
Lane 1 (input): Human fetal heart lysate 10µg
Lane 2 (+): **ab125022** & Human fetal heart lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab125022** in Human fetal heart lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125022**).



Flow Cytometry (Intracellular) - Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] - Low endotoxin, Azide free (ab226009)

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling Cytochrome P450 17A1/CYP17A1 with purified **ab125022** at 1/220 dilution (10ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab125022**).

Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] - Low endotoxin, Azide free (ab226009)

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