

Product datasheet

Alexa Fluor® 488 Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293] ab203995

Recombinant RabMAb

3 Images

Overview

Product name	Alexa Fluor® 488 Anti-Cytochrome P450 17A1/CYP17A1 antibody [EPR6293]
Description	Alexa Fluor® 488 Rabbit monoclonal [EPR6293] to Cytochrome P450 17A1/CYP17A1
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Cytochrome P450 17A1/CYP17A1. The exact sequence is proprietary.
Positive control	ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6293
Isotype	IgG

Applications

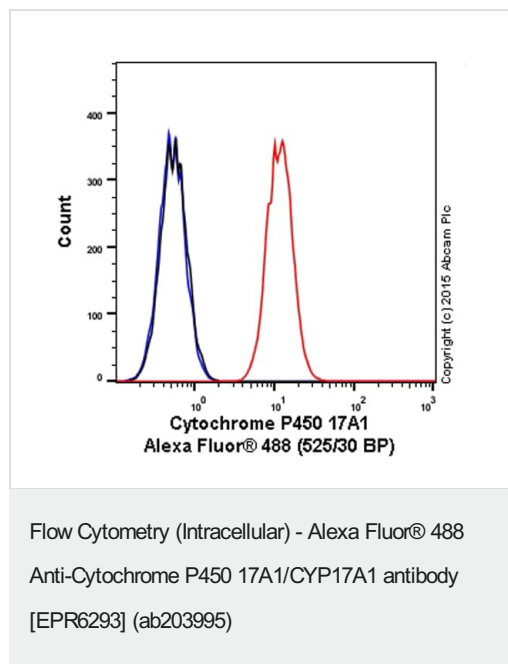
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab203995 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/50.
ICC/IF		1/200. This product gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min).

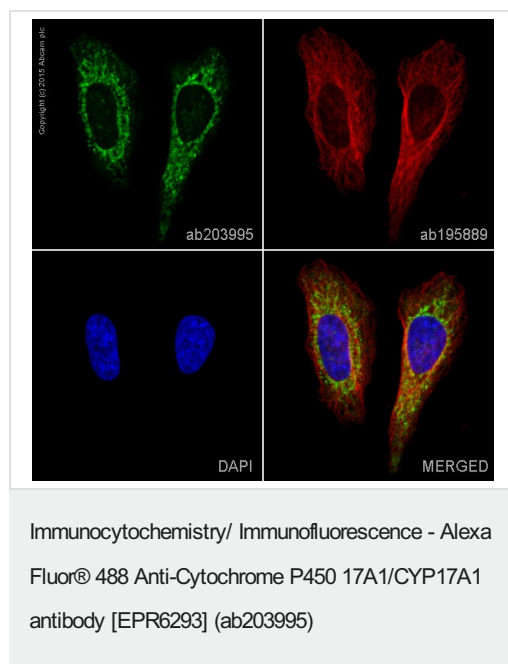
Target

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.

Images



Overlay histogram showing HeLa cells stained with ab203995 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab203995, 1/50 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG [EPR25A] Alexa Fluor® 488 (**ab199091**) 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 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HeLa cells fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



ab203995 staining Cytochrome P450 17A1/CYP17A1 in HeLa cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab203995 at 1/200 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 4% formaldehyde (10 min).

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Alexa Fluor® 488 Anti-Cytochrome P450

17A1/CYP17A1 antibody [EPR6293] (ab203995)

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

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