

CYP21A2 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7880c

Specification

CYP21A2 Antibody (Center) - Product Information

| | |
|-------------------|------------------------|
| Application | IF, WB, IHC-P, FC,E |
| Primary Accession | P08686 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Antigen Region | 216-246 |

CYP21A2 Antibody (Center) - Additional Information

Gene ID 1589

Other Names

Steroid 21-hydroxylase, 21-OHase, Cytochrome P-450c21, Cytochrome P450 21, Cytochrome P450 XXI, Cytochrome P450-C21, Cytochrome P450-C21B, CYP21A2, CYP21, CYP21B

Target/Specificity

This CYP21A2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 216-246 amino acids from the Central region of human CYP21A2.

Dilution

IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CYP21A2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CYP21A2 Antibody (Center) - Protein Information

Name CYP21A2

Synonyms CYP21, CYP21B

Function A cytochrome P450 monooxygenase that plays a major role in adrenal steroidogenesis. Catalyzes the hydroxylation at C-21 of progesterone and 17alpha-hydroxyprogesterone to respectively form 11- deoxycorticosterone and 11-deoxycortisol, intermediate metabolites in the biosynthetic pathway of mineralocorticoids and glucocorticoids (PubMed:[10602386](#), PubMed:[16984992](#), PubMed:[22014889](#), PubMed:[25855791](#), PubMed:[27721825](#)). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase) (PubMed:[25855791](#)).

Cellular Location

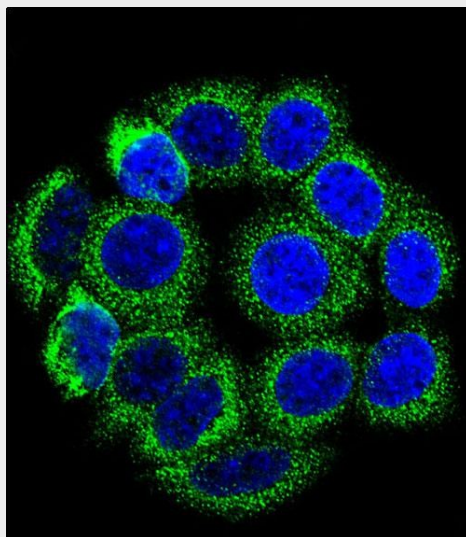
Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

CYP21A2 Antibody (Center) - Protocols

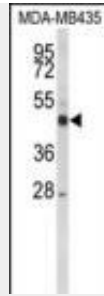
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

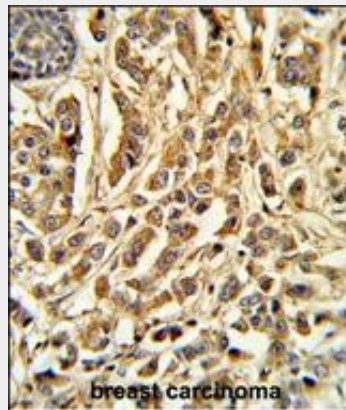
CYP21A2 Antibody (Center) - Images



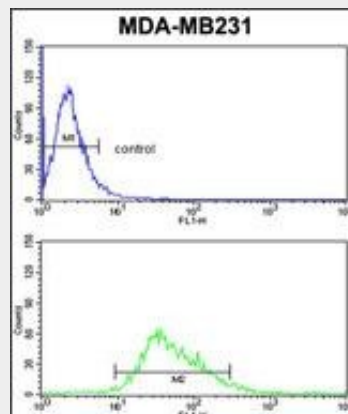
Confocal immunofluorescent analysis of CYP21A2 Antibody (Center)(Cat#AP7880c) with 293 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of CYP21A2 Antibody (Center) (Cat. #AP7880c) in MDA-MB435 cell line lysates (35ug/lane). CYP21A2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human breast carcinoma reacted with CYP21A2 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



CYP21A2 Antibody (Center) (Cat. #AP7880c) flow cytometric analysis of MDA-MB231 cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CYP21A2 Antibody (Center) - Background

CYP21A2 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and hydroxylates steroids at the 21 position. Its activity is required for the synthesis of steroid hormones including cortisol and aldosterone. Mutations in CYP21A2 gene cause congenital adrenal hyperplasia.

CYP21A2 Antibody (Center) - References

Guerra-Junior,G., Clin. Exp. Immunol. 155 (2), 182-188 (2009) Abid,F., Clin. Chem. Lab. Med. 46 (12), 1707-1713 (2008) Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)

CYP21A2 Antibody (Center) - Citations

- [Steroidogenic enzyme expression in the human fetal liver and potential role in the endocrinology of pregnancy.](#)