Product Name: CYP21A2 Rabbit Polyclonal Antibody
Catalog #: APRab09634

Summary

Production Name	CYP21A2 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC-P,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CYP21A2
Alternative Names	CYP21A2; CYP21; CYP21B; Steroid 21-hydroxylase; 21-OHase; Cytochrome P-450c21; Cytochrome P450 21; Cytochrome P450 XXI; Cytochrome P450-C21; Cytochrome P450-C21B
Gene ID	1589.0
SwissProt ID	P08686.The antiserum was produced against synthesized peptide derived from human Cytochrome P450 21A2. AA range:151-200

Application

Dilution Ratio	WB 1:500-1:2000, IHC-P 1:100-1:300, IF-P/IF-F/ICC/IF 1:200-1:1000, ELISA 1:20000.Not yet tested in other applications.

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Molecular Weight	55kDa

Background

cytochrome P450 family 21 subfamily A member 2(CYP21A2) Homo sapiens This gene encodes 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 this gene cause congenital adrenal hyperplasia. A related pseudogene is located near this gene; gene conversion events involving the functional gene and the pseudogene are thought to account for many cases of steroid 21-hydroxylase deficiency. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],catalytic activity:A steroid + AH(2) + O(2) = a 21-hydroxysteroid + A + H(2)O.,cofactor:Heme group.,disease:Defects in CYP21A2 are the cause of adrenal hyperplasia type 3 (AH3) [MIM:201910]. AH3 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).,domain:The leucine-rich hydrophobic amino acid N-terminal region probably helps to anchor the protein to the microsomal membrane.,function:Specifically catalyzes the 21-hydroxylation of steroids. Required for the adrenal synthesis of mineralocorticoids and glucocorticoids.,miscellaneous:The human genome contains 2 genes, C4A and C4B, for C4 complement component separated by approximately 10 kb. 3'to each of the C4 genes there is a steroid 21-hydroxylase gene. The gene 3'to C4A is a pseudogene.,online information:CYP21A2 alleles,online information:The Singapore human mutation and polymorphism database,similarity:Belongs to the cytochrome P450 family.,

Research Area

Steroid hormone biosynthesis;

Image Data

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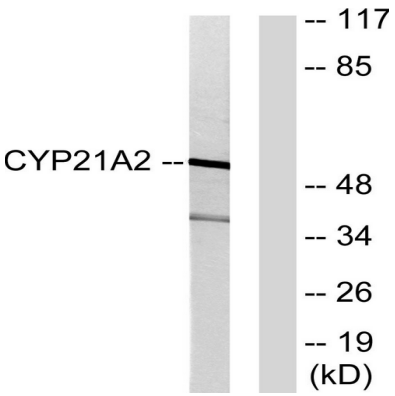
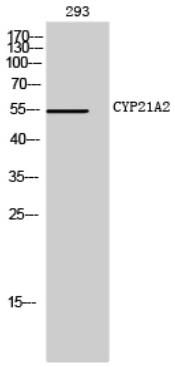


Western blot analysis of lysates from 293 cells, using Cytochrome P450 21A2 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of 293 cells using CYP21A2 Polyclonal Antibody diluted at 1： 1000

Note

For research use only.