Product name:	CYP21A2 Rabbit Polyclonal Antibody
Cat number:	ABN09635
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from the Internal region of human CYP21A2.
Reactivity:	Human,Rat,Mouse
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000
Molecular Weight:	55kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

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.,