Product Name: **CYP17A1 Rabbit Polyclonal Antibody**
Catalog #: **APRab09627**
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight	50kDa

Antigen Information

Gene Name	CYP17A1
Alternative Names	CYP17A1; CYP17; S17AH; Steroid 17-alpha-hydroxylase/17; 20 lyase; CYPXVII; Cytochrome P450 17A1; Cytochrome P450-C17; Cytochrome P450c17; Steroid 17-alpha-monooxygenase
Gene ID	1586.0
SwissProt ID	P05093
Immunogen	The antiserum was produced against synthesized peptide derived from human Cytochrome P450 17A1. AA range:221-270

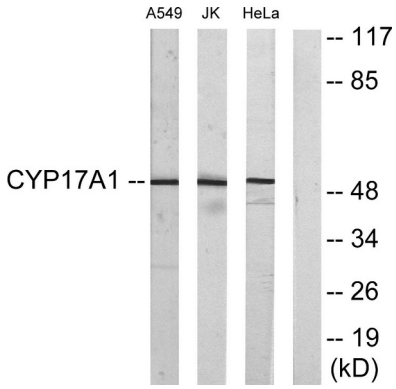
Background

cytochrome P450 family 17 subfamily A member 1(CYP17A1) 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. It has both 17alpha-hydroxylase and 17,20-lyase activities and is a key enzyme in the steroidogenic pathway that produces progestins, mineralocorticoids, glucocorticoids, androgens, and estrogens. Mutations in this gene are associated with isolated steroid-17 alpha-hydroxylase deficiency, 17-alpha-hydroxylase/17,20-lyase deficiency, pseudohermaphroditism, and adrenal hyperplasia. [provided by RefSeq, Jul 2008],catalytic activity:A steroid + AH(2) + O(2) = a 17-alpha-hydroxysteroid + A + H(2)O.,cofactor:Heme group.,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).,enzyme regulation:Regulated predominantly by intracellular cAMP levels.,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.,online information:The Singapore human mutation and polymorphism database,pathway:Lipid metabolism; steroid biosynthesis.,PTM:Phosphorylation is necessary for 17,20-lyase, but not for 17-alpha-hydroxylase activity.,similarity:Belongs to the cytochrome P450 family.,

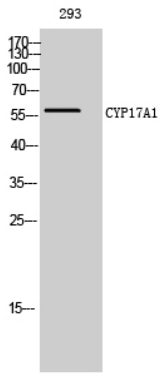
Research Area

Steroid hormone biosynthesis;

Image Data



Western blot analysis of lysates from Jurkat, A549, and HeLa cells, using Cytochrome P450 17A1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of 293 cells using CYP17A1 Polyclonal Antibody diluted at 1: 2000