

**Product Name: Cytochrome P450 17A1 (6C2) Rabbit
Monoclonal Antibody
Catalog #: AMRe09711**



Summary

Production Name	Cytochrome P450 17A1 (6C2) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Supplied in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% New type preservative N and 0.05% BSA.
Purification	Affinity purification

Immunogen

Gene Name	CYP17A1 {ECO:0000303 PubMed:19793597, ECO:0000312 HGNC:HGNC:2593}
Alternative Names	CPT7; CYP17; P450C17; S17AH; CYP17A1;
Gene ID	1586.0
SwissProt ID	P05093.A synthetic peptide of human Cytochrome P450 17A1

Application

Dilution Ratio	WB: 1:1000-1:5000
Molecular Weight	57kDa

Background

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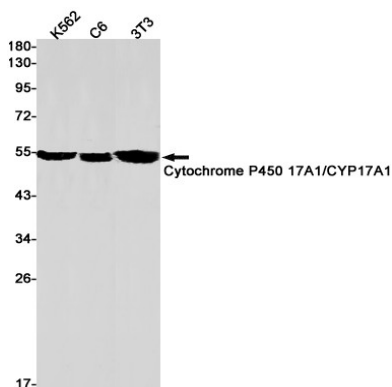


Conversion of pregnenolone and progesterone to their 17-alpha-hydroxylated products and subsequently to dehydroepiandrosterone (DHEA) and androstenedione. A cytochrome P450 monooxygenase involved in corticoid and androgen biosynthesis (PubMed:9452426, PubMed:27339894, PubMed:22266943, PubMed:25301938). Catalyzes 17-alpha hydroxylation of C21 steroids, which is common for both pathways. A second oxidative step, required only for androgen synthesis, involves an acyl-carbon cleavage. The 17-alpha hydroxy intermediates, as part of adrenal glucocorticoids biosynthesis pathway, are precursors of cortisol (PubMed:9452426, PubMed:25301938) (Probable). Hydroxylates steroid hormones, pregnenolone and progesterone to form 17-alpha hydroxy metabolites, followed by the cleavage of the C17-C20 bond to form C19 steroids, dehydroepiandrosterone (DHEA) and androstenedione (PubMed:9452426, PubMed:27339894, PubMed:22266943, PubMed:25301938). Has 16-alpha hydroxylase activity. Catalyzes 16-alpha hydroxylation of 17-alpha hydroxy pregnenolone, followed by the cleavage of the C17-C20 bond to form 16-alpha-hydroxy DHEA. Also 16-alpha hydroxylates androgens, relevant for estriol synthesis (PubMed:27339894, PubMed:25301938). 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:9452426, PubMed:27339894, PubMed:22266943, PubMed:25301938).

Research Area

Image Data

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Western blot detection of Cytochrome P450 17A1/CYP17A1 in K562,C6,3T3 cell lysates using Cytochrome P450 17A1/CYP17A1 antibody(1:1000 diluted).

Note

For research use only.