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Anti-CYP17 / CYP17A1 Antibody (aa1-508)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18525

Product Information

Application	WB, IHC-P, E
Primary Accession	P05093
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	57371
Concentration (mg/ml)	3 mg/ml

Additional Information

Gene ID	1586
Alias Symbol	CYP17A1
Other Names	CYP17A1, CYP17, CYPXVII, CPT7, Cytochrome P450-C17, Cytochrome P450c17, p450C17, Steroid 17-alpha-monooxygenase, Cytochrome P450 17A1, Cytochrome p450 XVIIA1, S17AH
Target/Specificity	Human CYP17 / CYP17A1
Reconstitution & Storage	Caprylic acid and ammonium sulfate precipitation
Precautions	Anti-CYP17 / CYP17A1 Antibody (aa1-508) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CYP17A1 {ECO:0000303|PubMed:19793597, ECO:0000312|HGNC:HGNC:2593}
Function	A cytochrome P450 monooxygenase involved in corticoid and androgen biosynthesis (PubMed:22266943, PubMed:25301938, PubMed:27339894, PubMed:9452426). 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 (Probable) (PubMed:25301938, PubMed:9452426). 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:22266943, PubMed:25301938, PubMed:27339894,

PubMed:36640554, PubMed:9452426). 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 (PubMed:36640554). Also 16-alpha hydroxylates androgens, relevant for estriol synthesis (PubMed:25301938, PubMed:27339894). 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:22266943, PubMed:25301938, PubMed:27339894, PubMed:9452426).

Cellular Location Endoplasmic reticulum membrane. Microsome membrane