

# Cytochrome P450 17A1 Rabbit mAb

Catalog # AP75325

## Product Information

Application	WB, IHC-P, IHC-F, IP, ICC
Primary Accession	<a href="#">P05093</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	57371

## Additional Information

Gene ID	1586
Other Names	CYP17A1
Dilution	WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A ICC~~N/A
Format	Liquid

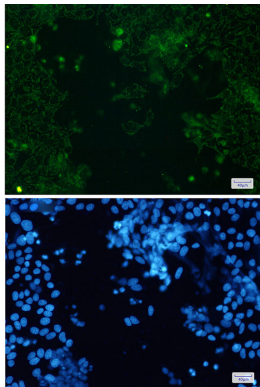
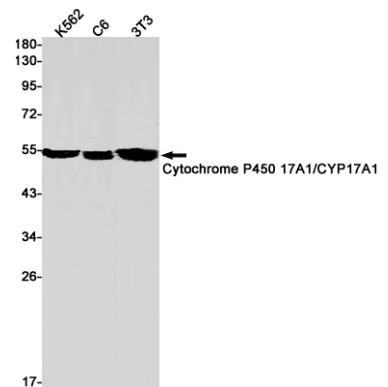
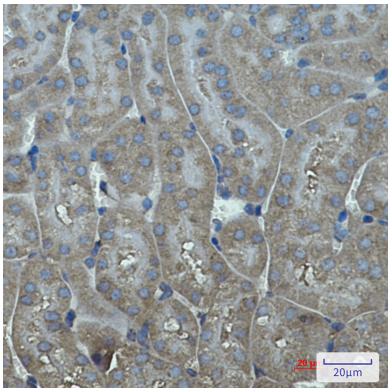
## Protein Information

Name	CYP17A1 {ECO:0000303   PubMed:19793597, ECO:0000312   HGNC:HGNC:2593}
Function	<p>A cytochrome P450 monooxygenase involved in corticoid and androgen biosynthesis (PubMed:<a href="#">22266943</a>, PubMed:<a href="#">25301938</a>, PubMed:<a href="#">27339894</a>, PubMed:<a href="#">9452426</a>). 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:<a href="#">25301938</a>, PubMed:<a href="#">9452426</a>). 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:<a href="#">22266943</a>, PubMed:<a href="#">25301938</a>, PubMed:<a href="#">27339894</a>, PubMed:<a href="#">36640554</a>, PubMed:<a href="#">9452426</a>). 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:<a href="#">36640554</a>). Also 16-alpha hydroxylates androgens, relevant for estriol synthesis (PubMed:<a href="#">25301938</a>, PubMed:<a href="#">27339894</a>). 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:<a href="#">22266943</a>, PubMed:<a href="#">25301938</a>, PubMed:<a href="#">27339894</a>, PubMed:<a href="#">9452426</a>).</p>

Cellular Location

Endoplasmic reticulum membrane. Microsome membrane

Images



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