

**Cytochrome P450 17A1 Antibody**  
**Rabbit mAb**  
**Catalog # AP91937****Specification****Cytochrome P450 17A1 Antibody - Product Information**

|                                        |                        |
|----------------------------------------|------------------------|
| Application                            | WB, FC, ICC, IP        |
| Primary Accession                      | <a href="#">P05093</a> |
| Reactivity                             | Rat                    |
| Clonality                              | Monoclonal             |
| <b>Other Names</b>                     |                        |
| CYP17; CYP17; P450C17; S17AH; CYP17A1; |                        |

|               |            |
|---------------|------------|
| Isotype       | Rabbit IgG |
| Host          | Rabbit     |
| Calculated MW | 57371 Da   |

**Cytochrome P450 17A1 Antibody - Additional Information**

|                              |                                                                                                                                                                                               |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dilution                     | WB~~1:1000<br>FC~~1:10~50<br>ICC~~N/A<br>IP~~N/A                                                                                                                                              |
| Purification                 | Affinity-chromatography                                                                                                                                                                       |
| Immunogen                    | A synthesized peptide derived from human<br>Cytochrome P450 17A1                                                                                                                              |
| Description                  | Conversion of pregnenolone and<br>progesterone to their<br>17-alpha-hydroxylated products and<br>subsequently to dehydroepiandrosterone<br>(DHEA) and androstenedione.                        |
| Storage Condition and Buffer | Rabbit IgG in phosphate buffered saline ,<br>pH 7.4, 150mM NaCl, 0.02% sodium azide<br>and 50% glycerol. Store at +4°C short<br>term. Store at -20°C long term. Avoid<br>freeze / thaw cycle. |

**Cytochrome P450 17A1 Antibody - 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:<a href="http://www.uniprot.org/citations/22266943" target="\_blank">22266943</a>, PubMed:<a href="http://www.uniprot.org/citations/25301938" target="\_blank">25301938</a>, PubMed:<a href="http://www.uniprot.org/citations/27339894" target="\_blank">27339894</a>, PubMed:<a href="http://www.uniprot.org/citations/9452426" target="\_blank">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="http://www.uniprot.org/citations/25301938" target="\_blank">25301938</a>, PubMed:<a href="http://www.uniprot.org/citations/9452426" target="\_blank">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="http://www.uniprot.org/citations/22266943" target="\_blank">22266943</a>, PubMed:<a href="http://www.uniprot.org/citations/25301938" target="\_blank">25301938</a>, PubMed:<a href="http://www.uniprot.org/citations/27339894" target="\_blank">27339894</a>, PubMed:<a href="http://www.uniprot.org/citations/36640554" target="\_blank">36640554</a>, PubMed:<a href="http://www.uniprot.org/citations/9452426" target="\_blank">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="http://www.uniprot.org/citations/36640554" target="\_blank">36640554</a>). Also 16-alpha hydroxylates androgens, relevant for estriol synthesis (PubMed:<a href="http://www.uniprot.org/citations/25301938" target="\_blank">25301938</a>, PubMed:<a href="http://www.uniprot.org/citations/27339894" target="\_blank">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="http://www.uniprot.org/citations/22266943" target="\_blank">22266943</a>, PubMed:<a href="http://www.uniprot.org/citations/25301938" target="\_blank">25301938</a>, PubMed:<a href="http://www.uniprot.org/citations/27339894" target="\_blank">27339894</a>, PubMed:<a href="http://www.uniprot.org/citations/9452426" target="\_blank">9452426</a>).

#### **Cellular Location**

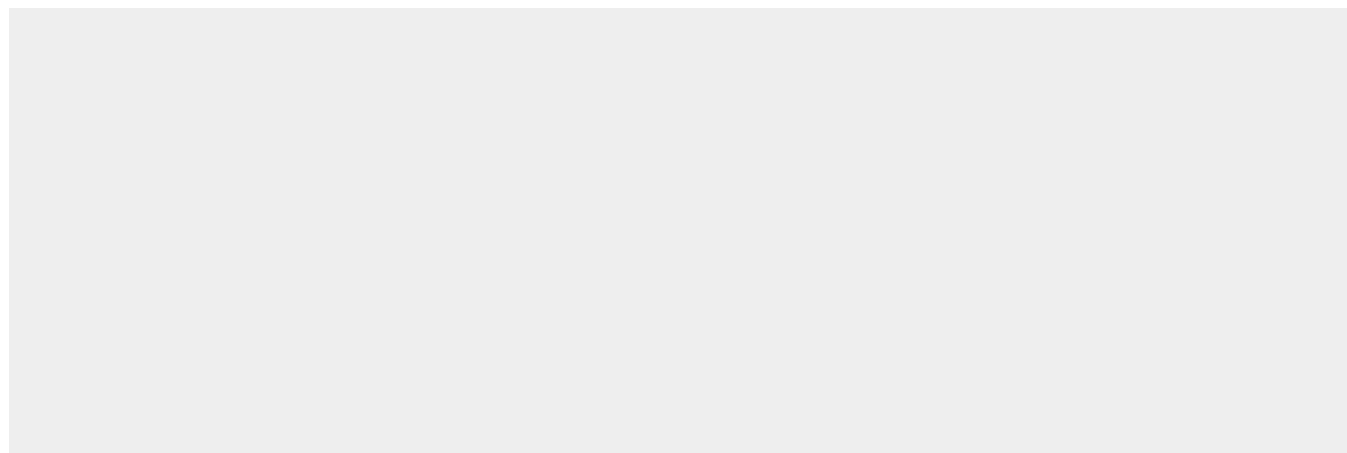
Endoplasmic reticulum membrane. Microsome membrane

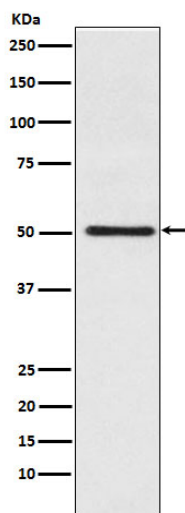
#### **Cytochrome P450 17A1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Cytochrome P450 17A1 Antibody - Images**





Western blot analysis of Cytochrome P450 17A1 expression in Jurkat cell lysate.