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# Cytochrome P450 11A1 Antibody
**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP50651**

## Specification

### Cytochrome P450 11A1 Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P05108 |
| Reactivity | **Human** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Calculated MW | **60 42 KDa** |
| Antigen Region | **420-451** |

### Cytochrome P450 11A1 Antibody - Additional Information

**Gene ID** 1583

**Other Names**
Cholesterol side-chain cleavage enzyme, mitochondrial, CYPXIA1, Cholesterol desmolase, Cytochrome P450 11A1, Cytochrome P450(scc), CYP11A1, CYP11A

**Dilution**
WB~~1:1000

**Format**
Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.

**Storage Conditions**
-20℃

### Cytochrome P450 11A1 Antibody - Protein Information

**Name** CYP11A1 {ECO:0000303|PubMed:21636783, ECO:0000312|HGNC:HGNC:2590}

**Function**
A cytochrome P450 monooxygenase that catalyzes the side-chain hydroxylation and cleavage of cholesterol to pregnenolone, the precursor of most steroid hormones (PubMed:<a href="http://www.uniprot.org/citations/21636783" target="_blank">21636783</a>). Catalyzes three sequential oxidation reactions of cholesterol, namely the hydroxylation at C22 followed with the hydroxylation at C20 to yield 20R,22R- hydroxycholesterol that is further cleaved between C20 and C22 to yield the C21-steroid pregnenolone and 4-methylpentanal (PubMed:<a href="http://www.uniprot.org/citations/21636783" target="_blank">21636783</a>). Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate and reducing the second into a water molecule. Two electrons are provided by NADPH via a two-protein mitochondrial transfer system comprising flavoprotein FDXR (adrenodoxin/ferredoxin reductase) and nonheme iron-sulfur protein FDX1 or FDX2 (adrenodoxin/ferredoxin) (PubMed:<a

href="http://www.uniprot.org/citations/21636783" target="_blank">21636783</a>).

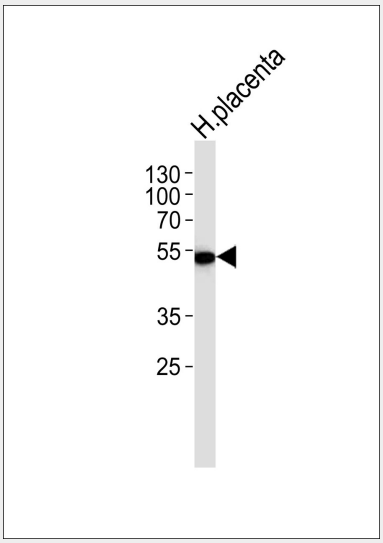
**Cellular Location**
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P14137}; Peripheral membrane protein. Note=Localizes to the matrix side of the mitochondrion inner membrane. {ECO:0000250|UniProtKB:P14137}

## Cytochrome P450 11A1 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 Cytomety
- Cell Culture

## Cytochrome P450 11A1 Antibody - Images




Western blot analysis of lysate from human placenta tissue lysate,using Cytochrome P450 11A1 Antibody(AP50651). AP50651 was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.

## Cytochrome P450 11A1 Antibody - Background

Catalyzes the side-chain cleavage reaction of cholesterol to pregnenolone.

## Cytochrome P450 11A1 Antibody - References

Chung B.-C.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:8962-8966(1986).
Morohashi K.,et al.J. Biochem. 101:879-887(1987).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Zody M.C.,et al.Nature 440:671-675(2006).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.

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