

CYP11A1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7899a

Specification

CYP11A1 Antibody (N-term) - Product Information

| | |
|-------------------|------------------------|
| Application | WB,E |
| Primary Accession | P05108 |
| Other Accession | Q2XV99 |
| Reactivity | Human |
| Predicted | Monkey |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Antigen Region | 88-120 |

CYP11A1 Antibody (N-term) - Additional Information

Gene ID 1583

Other Names

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

Target/Specificity

This CYP11A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 88-120 amino acids from the N-terminal region of human CYP11A1.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CYP11A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

CYP11A1 Antibody (N-term) - 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:[21636783](#)). 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:[21636783](#)). 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:[21636783](#)).

Cellular Location

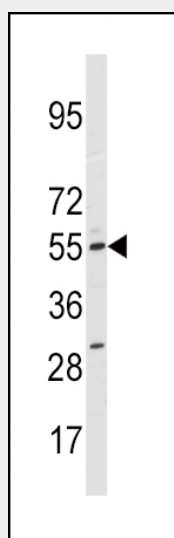
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P14137}; Peripheral membrane protein. Note=Localizes to the matrix side of the mitochondrion inner membrane. {ECO:0000250|UniProtKB:P14137}

CYP11A1 Antibody (N-term) - 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](#)

CYP11A1 Antibody (N-term) - Images



Western blot analysis of anti-CYP11A1 Antibody (N-term) (Cat.#AP7899a) in HepG2 cell line lysates (35ug/lane). CYP11A1 (arrow) was detected using the purified Pab.

CYP11A1 Antibody (N-term) - Background

CYP11A1 is a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and

synthesis of cholesterol, steroids and other lipids. This protein localizes to the mitochondrial inner membrane and catalyzes the conversion of cholesterol to pregnenolone, the first and rate-limiting step in the synthesis of the steroid hormones.

CYP11A1 Antibody (N-term) - References

Celhar,T., Cancer Genet. Cytogenet. 187 (1), 28-33 (2008)

Morales,A., Pancreas 37 (2), 165-169 (2008)

Shigematsu,K., Eur. J. Endocrinol. 158 (6), 867-878 (2008)

CYP11A1 Antibody (N-term) - Citations

- [STARD6 is expressed in steroidogenic cells of the ovary and can enhance de novo steroidogenesis.](#)