

CYP11A1 Polyclonal Antibody
Catalog # AP73406**Specification****CYP11A1 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	P05108
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal

CYP11A1 Polyclonal Antibody - Additional Information**Gene ID** 1583**Other Names**

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

Dilution

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

CYP11A1 Polyclonal 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: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

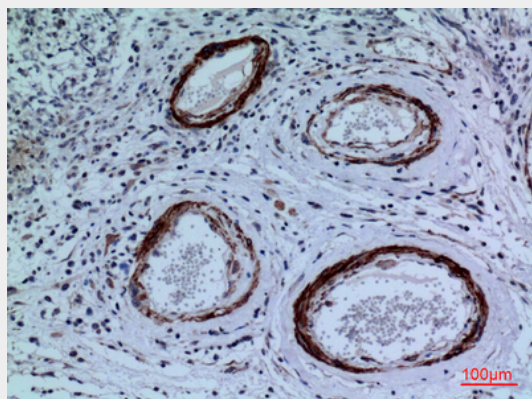
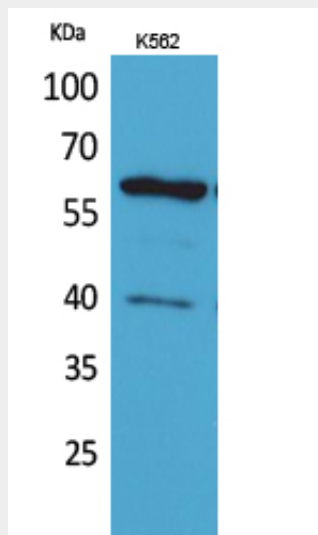
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P14137}; Peripheral membrane protein.
Note=Localizes to the matrix side of the mitochondrion inner membrane.
{ECO:0000250|UniProtKB:P14137}

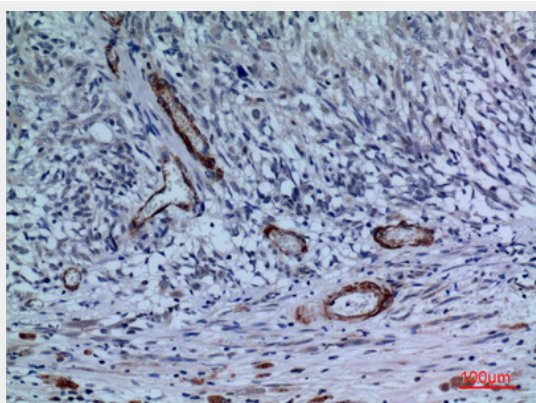
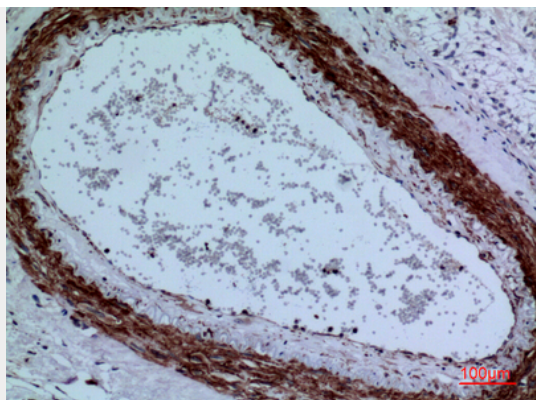
CYP11A1 Polyclonal Antibody - Protocols

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](#)

CYP11A1 Polyclonal Antibody - Images





CYP11A1 Polyclonal Antibody - Background

Catalyzes the side-chain cleavage reaction of cholesterol to pregnenolone, the precursor of most steroid hormones.