

CYP11A1 Polyclonal Antibody

Catalog # AP69370

Product Information

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|--------------------------|------------------------|
| Application | WB, E |
| Primary Accession | P05108 |
| Reactivity | Human |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 60102 |

Additional Information

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|---------------------------|--|
| 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. ELISA: 1/5000. Not yet tested in other applications. E~~N/A |
| Format | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide. |
| Storage Conditions | -20°C |

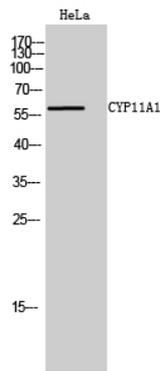
Protein Information

| | |
|--------------------------|---|
| 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 |

Background

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

Images



Western Blot analysis of HeLa cells using CYP11A1 Polyclonal Antibody

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