

ARG43123 anti-CYP11A1 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CYP11A1
Tested Reactivity	Hu
Tested Application	IHC-Fr, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CYP11A1
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 507-521 of Human CYP11A1. (ISFTFWPFNQEATQQ)
Conjugation	Un-conjugated
Alternate Names	CYP11A; Cytochrome P450; Cholesterol desmolase; P450SCC; EC 1.14.15.6; CYPXIA1; Cytochrome P450 11A1; scc; Cholesterol side-chain cleavage enzyme, mitochondrial

Application Instructions

Application table	Application	Dilution
	IHC-Fr	1:200 - 1:1000
	IHC-P	1:200 - 1:1000
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Observed Size	~ 56 kDa	

Properties

Form	Liquid
Purification	Immunogen affinity purified.
Buffer	0.2% Na2HPO4, 0.9% NaCl, 0.05% Thimerosal, 0.05% Sodium azide and 5% BSA.
Preservative	0.05% Thimerosal and 0.05% Sodium azide
Stabilizer	5% BSA
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

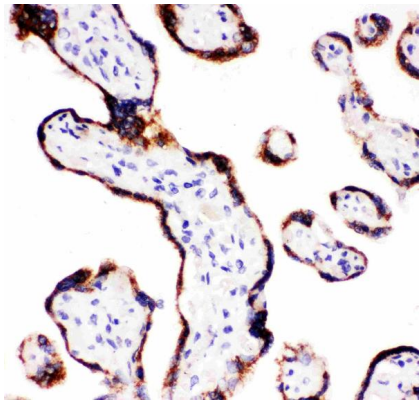
Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

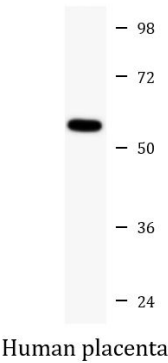
Gene Symbol	CYP11A1
Gene Full Name	cytochrome P450, family 11, subfamily A, polypeptide 1
Background	This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases which catalyze many reactions involved in drug metabolism and synthesis of cholesterol, 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. Two transcript variants encoding different isoforms have been found for this gene. The cellular location of the smaller isoform is unclear since it lacks the mitochondrial-targeting transit peptide. [provided by RefSeq, Jul 2008]
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). [UniProt]
Calculated Mw	60 kDa
Cellular Localization	Mitochondrion inner membrane; Peripheral membrane protein. Note=Localizes to the matrix side of the mitochondrion inner membrane. [UniProt]

Images



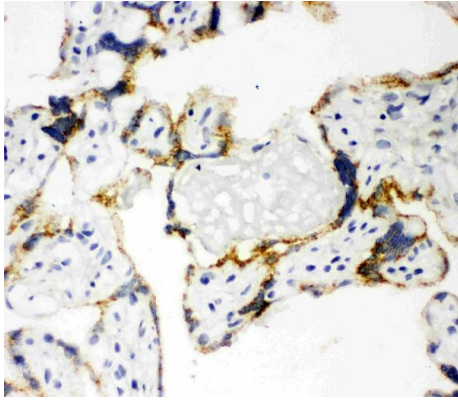
ARG43123 anti-CYP11A1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human placenta tissue stained with ARG43123 anti-CYP11A1 antibody.



ARG43123 anti-CYP11A1 antibody WB image

Western blot: Human placenta lysate stained with ARG43123 anti-CYP11A1 antibody.



ARG43123 anti-CYP11A1 antibody IHC-Fr image

Immunohistochemistry: Frozen section of Human placenta tissue stained with ARG43123 anti-CYP11A1 antibody.