

Recombinant Human CYP11A1, His-tagged

Cat. No. CYP11A1-11761H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYP11A1 protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-300a.a.
Description	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.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15%glycerol.

GENE INFORMATION

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Gene Name	CYP11A1 cytochrome P450, family 11, subfamily A, polypeptide 1 [Homo sapiens]
Official Symbol	CYP11A1
Synonyms	CYP11A1; cytochrome P450, family 11, subfamily A, polypeptide 1; CYP11A, cytochrome P450, subfamily XIA (cholesterol side chain cleavage); cholesterol side-chain cleavage enzyme, mitochondrial; cholesterol monooxygenase (side chain cleaving); P450SCC; steroid 20-22-lyase; cytochrome P450 11A1; cytochrome P450(scc); cytochrome P450C11A1; cholesterol 20-22 desmolase; cholesterol monooxygenase (side-chain cleaving); cytochrome P450, subfamily XIA (cholesterol side chain cleavage); CYP11A; CYPXIA1;
Gene ID	1583
mRNA Refseq	NM_000781
Protein Refseq	NP_000772
MIM	118485
UniProt ID	P05108
Chromosome Location	15q23-q24
Pathway	Biological oxidations, organism-specific biosystem; Cytochrome P450 - arranged by substrate type, organism-specific biosystem; Endogenous sterols, organism-specific biosystem; Glucocorticoid & Mineralcorticoid Metabolism, organism-specific biosystem; Metabolic pathways, organism-specific biosystem;
Function	cholesterol binding; cholesterol monooxygenase (side-chain-cleaving) activity;

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cholesterol monooxygenase (side-chain-cleaving) activity; electron carrier activity; heme binding; metal ion binding; monooxygenase activity; oxidoreductase activity, acting on

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