CYP11B1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CYP11B1, Polyclonal Antibody
Full Product Name	CYP11B1 Antibody, Biotin conjugated
Product Gene Name	anti-CYP11B1 antibody
Product Synonym Names	Cytochrome P450 11B1; mitochondrial; CYPXIB1; Cytochrome P-450c11; Cytochrome P450C11; Steroid 11-beta-hydroxylase (EC: 1.14.15.4); CYP11B1; S11BH
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: CYP11B1 (MBS7047985) Biotin Conjugated Antibody: CYP11B1 (MBS7047988)
Molecular Weight	49,750 Da
3D Structure	ModBase 3D Structure for P15538
Immunogen	Recombinant human Cytochrome P450 11B1, mitochondrial protein (88-323AA)
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, PH 7.4
Conjugation	Biotin
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-47649 / sc-47647 / sc-32372
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CYP11B1 antibody	ELISA (EIA)
Related Product Information for anti-CYP11B1 antibody	Has steroid 11-beta-hydroxylase activity. In addition to this activity, the 18 or 19-hydroxylation of steroids and the aromatization of androstendione to estrone have also been ascribed to cytochrome P450 XIB.
Other Notes	Small volumes of anti-CYP11B1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CYP11B1 purchase	MBS7047988 is an antibody targeting CYP11B1. Also known as CYP11B1 Antibody, Biotin conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP11B1. It may not necessarily be applicable to this product.

NCBI GI #	61743918

NCBI GeneID	1584
NCBI Accession #	NP_000488.3
UniProt Primary Accession #	P15538
UniProt Secondary Accession #	Q14095; Q4VAQ8; Q4VAQ9; Q9UML2
UniProt Related Accession #	P15538
GenBank Nucleotide #	NM_000497.3
NCBI Official Full Name	cytochrome P450 11B1, mitochondrial isoform 1
NCBI Official Synonym Full Names	cytochrome P450 family 11 subfamily B member 1
NCBI Official Symbol	CYP11B1
NCBI Official Synonym Symbols	FHI; CPN1; CYP11B; P450C11
UniProt Protein Name	Cytochrome P450 11B1, mitochondrial
UniProt Synonym Protein Names	CYPXIB1; Cytochrome P-450c11; Cytochrome P450C11; Steroid 11-beta-hydroxylase (EC:1.14.15.4)
Protein Family	Cytochrome
UniProt Gene Name	CYP11B1
UniProt Synonym Gene Names	S11BH; Cytochrome P450C11
UniProt Entry Name	C11B1_HUMAN
NCBI Protein Information	cytochrome P450 11B1, mitochondrial
NCBI Summary for CYP11B1	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 is involved in the conversion of progesterone to cortisol in the adrenal cortex. Mutations in this gene cause congenital adrenal hyperplasia due to 11-beta-hydroxylase deficiency. Transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for CYP11B1	CYP11B1: Has steroid 11-beta-hydroxylase activity. In addition to this activity, the 18 or 19-hydroxylation of steroids and the aromatization of androstendione to estrone have also been ascribed to cytochrome P450 XIB. Defects in CYP11B1 are the cause of adrenal hyperplasia type 4 (AH4). AH4 is a form of congenital adrenal hyperplasia, a common recessive disease due to defective synthesis of cortisol. Congenital adrenal hyperplasia is characterized by androgen excess leading to ambiguous genitalia in affected females, rapid somatic growth during childhood in both sexes with premature closure of the epiphyses and short adult stature. Four clinical types: salt wasting (SW, the most severe type), simple virilizing (SV, less severely affected patients), with normal aldosterone biosynthesis, non-classic form or late onset (NC or LOAH), and cryptic (asymptomatic). AH4 patients usually have hypertension. Defects in CYP11B1 are a cause of familial hyperaldosteronism type 1 (FH1). It is a disorder characterized by hypertension, variable hyperaldosteronism, and abnormal adrenal steroid production, including 18-oxocortisol and 18-hydroxycortisol. There is significant phenotypic heterogeneity, and some individuals never develop hypertension. The molecular defect causing hyperaldosteronism familial type 1 is an anti-Lepore-type fusion of the CYP11B1 and CYP11B2 genes. The hybrid gene has the promoting part of CYP11B1, ACTH-sensitive, and the coding part of CYP11B2. Belongs to the cytochrome P450 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 1.14.15.4; Lipid Metabolism - C21-steroid hormone; Lipid Metabolism - androgen and estrogen; Mitochondrial; Oxidoreductase Chromosomal Location of Human Ortholog: 8q21 Cellular Component: mitochondrial inner membrane; mitochondrion Molecular Function: corticosterone 18-monooxygenase activity; heme binding; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, NADH or NADPH as one donor, and incorporation of one atom of oxygen; steroid 11-beta-monooxygenase activity Biological Process: aldosterone biosynthetic process; C21-steroid hormone biosynthetic process; cellular response to hormone stimulus; cholesterol metabolic process; glucocorticoid biosynthetic process; glucose homeostasis; immune response; regulation of blood pressure; sterol metabolic process Disease: Adrenal Hyperplasia, Congenital, Due To Steroid 11-beta-hydroxylase Deficiency; Glucocorticoid-remediable Aldosteronism
Research Articles on CYP11B1	**1.** Data from a 19-year-old Chinese woman and her parents suggest congenital adrenal hyperplasia due to steroid 11beta-hydroxylase deficiency can be attributed to both a novel deletion mutation (g.9525_9526delCT, corresponding to p.L380V em leaderR420X) and a known missense mutation (g.5194G>C corresponding to p.D63H) in CYP11B1. [CASE-REPORT]
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