CYP21A2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CYP21A2, Polyclonal Antibody
Full Product Name	CYP21A2 Antibody
Product Gene Name	anti-CYP21A2 antibody
Product Synonym Names	21-hydroxylase; 21-OHase; CA21H; CAH1; CP21A
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Specificity	The antibody detects endogenous levels of total CYP21A2protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
Molecular Weight	55,887 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (32006093..32009447). Location: 6p21.3
OMIM	201910
3D Structure	ModBase 3D Structure for P08686
Immunogen	Synthesized peptide derived from C-terminal of human CYP21A2.
Product Categories/Family for anti-CYP21A2 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-CYP21A2 antibody	Western Blot (WB)
Application Notes for anti-CYP21A2 antibody	WB: 1:500~1:3000
Related Product Information for anti-CYP21A2 antibody	Specifically catalyzes the 21-hydroxylation of steroids. Required for the adrenal synthesis of mineralocorticoids and glucocorticoids.
Product References and Citations for anti-CYP21A2 antibody	Higashi Y., Proc. Natl. Acad. Sci. U.S.A. 83:2841-2845 (1986).White P.C., Proc. Natl. Acad. Sci. U.S.A. 83:5111-5115 (1986).Rodrigues N.R., EMBO J. 6:1653-1661 (1987)
Other Notes	Small volumes of anti-CYP21A2 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 CYP21A2 purchase	MBS8588822 is an antibody targeting CYP21A2. Also known as CYP21A2 Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP21A2. It may not necessarily be applicable to this product.

NCBI GI #	323510663
NCBI GeneID	1589
NCBI Accession #	NP_000491.4
UniProt Primary Accession #	P08686
UniProt Secondary Accession #	P04033; Q01204; Q08AG8; Q16749; Q16806; Q5ST44; Q96NU8; A2BHY6
UniProt Related Accession #	P08686
GenBank Nucleotide #	NM_000500.7
NCBI Official Full Name	steroid 21-hydroxylase isoform a
NCBI Official Synonym Full Names	cytochrome P450, family 21, subfamily A, polypeptide 2
NCBI Official Symbol	CYP21A2
NCBI Official Synonym Symbols	CAH1; CPS1; CA21H; CYP21; CYP21B; P450c21B
UniProt Protein Name	Steroid 21-hydroxylase
UniProt Synonym Protein Names	21-OHase; Cytochrome P-450c21; Cytochrome P450 21; Cytochrome P450 XXI; Cytochrome P450-C21; Cytochrome P450-C21B
UniProt Gene Name	CYP21A2
UniProt Synonym Gene Names	CYP21; CYP21B
UniProt Entry Name	CP21A_HUMAN
NCBI Protein Information	steroid 21-hydroxylase; 21-OHase; cytochrome P450 21; cytochrome P450 XXI; cytochrome P450-C21B; steroid 21-monooxygenase; cytochrome P450, subfamily XXIA (steroid 21-hydroxylase, congenital adrenal hyperplasia), polypeptide 2
NCBI Summary for CYP21A2	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 endoplasmic reticulum and hydroxylates steroids at the 21 position. Its activity is required for the synthesis of steroid hormones including cortisol and aldosterone. Mutations in this gene cause congenital adrenal hyperplasia. A related pseudogene is located near this gene; gene conversion events involving the functional gene and the pseudogene are thought to account for many cases of steroid 21-hydroxylase deficiency. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for CYP21A2	CYP21A2: Specifically catalyzes the 21-hydroxylation of steroids. Required for the adrenal synthesis of mineralocorticoids and glucocorticoids. Defects in CYP21A2 are the cause of adrenal hyperplasia type 3 (AH3). AH3 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). Belongs to the cytochrome P450 family. Protein type: EC 1.14.99.10; Oxidoreductase; Lipid Metabolism - C21-steroid hormone Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: endoplasmic reticulum membrane Molecular Function: steroid 21-monooxygenase activity; iron ion binding; heme binding; steroid hydroxylase activity; steroid binding Biological Process: steroid metabolic process; xenobiotic metabolic process; mineralocorticoid biosynthetic process; glucocorticoid biosynthetic process; sterol metabolic process Disease: Adrenal Hyperplasia, Congenital, Due To 21-hydroxylase Deficiency
Research Articles on CYP21A2	**1.** Data suggest that adult males with congenital adrenal hyperplasia due to 21-hydroxylase deficiency (CYP21A2 mutations) exhibit decreased bone mineral density and bone formation markers compared with age-/sex-matched controls.
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