ARG66853
anti-CYP11B1 + CYP11B2 antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CYP11B1 + CYP11B2
Tested Reactivity	Hu
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CYP11B1 + CYP11B2
Species	Human
Immunogen	Synthetic peptide derived from the C-terminal region of Human CYP11B1/2.
Conjugation	Un-conjugated
Alternate Names	CYP11B1: Cytochrome P-450c11; CYP11B; P450C11; FHI; Cytochrome P450C11; EC 1.14.15.4; Steroid 11-beta-hydroxylase; CYPXIB1; Cytochrome P450 11B1, mitochondrial; CPN1 CYP11B2: CYP11B; P-450C18; Cytochrome P-450Aldo; CYP11BL; Cytochrome P-450C18; ALDOS; Aldosterone-synthesizing enzyme; EC 1.14.15.4; EC 1.14.15.5; Cytochrome P450 11B2, mitochondrial; CYPXIB2; P450aldo; Steroid 18-hydroxylase; CPN2; P450C18; Aldosterone synthase

Application Instructions

Application table

Application	Dilution
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.
Positive Control	COLO205
Observed Size	~ 48 kDa

Properties

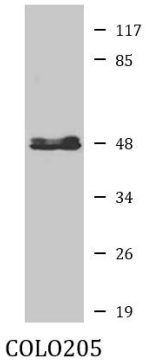
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.02% Sodium azide, 50% Glycerol and 0.5% BSA.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol and 0.5% BSA
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. 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	CYP11B1; CYP11B2
Gene Full Name	cytochrome P450, family 11, subfamily B, polypeptide 1 cytochrome P450, family 11, subfamily B, polypeptide 2
Background	CYP11B 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. CYP11B1 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] CYP11B2 protein localizes to the mitochondrial inner membrane. The enzyme has steroid 18-hydroxylase activity to synthesize aldosterone and 18-oxocortisol as well as steroid 11 beta-hydroxylase activity. Mutations in this gene cause corticosterone methyl oxidase deficiency. [provided by RefSeq, Jul 2008]
Function	CYP11B1: A cytochrome P450 monooxygenase involved in the biosynthesis of adrenal corticoids (PubMed:18215163). Catalyzes the hydroxylation of carbon hydrogen bond at 11-beta position of 11-deoxycortisol and 11-deoxycorticosterone/21-hydroxyprogesterone yielding cortisol or corticosterone, respectively (PubMed:18215163). 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:18215163). [UniProt] CYP11B2: A cytochrome P450 monooxygenase that catalyzes the biosynthesis of adrenal mineralocorticoid aldosterone (PubMed:11856349, PubMed:23322723, PubMed:1594605, PubMed:9814506). Catalyzes three sequential oxidative reactions of 11-deoxycorticosterone/21-hydroxyprogesterone, namely 11-beta hydroxylation followed with two successive oxidations at C18 to yield 18-hydroxy and then 18-aldehyde derivatives, resulting in the formation of aldosterone (PubMed:11856349, PubMed:23322723, PubMed:1594605, PubMed:9814506). 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:11856349, PubMed:23322723, PubMed:1594605, PubMed:9814506). [UniProt]
Calculated Mw	58 kDa
Cellular Localization	CYP11B1 & CYP11B2: Mitochondrion membrane. [UniProt]

Images



ARG66853 anti-CYP11B1 + CYP11B2 antibody WB image

Western blot: COLO205 cell lysate stained with ARG66853 anti-CYP11B1 + CYP11B2 antibody.