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Anti-Cytochrome P450 11B1/2 Antibody

Catalog # AP53988

Product Information

Application	WB
Primary Accession	P15538
Other Accession	P19099
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57573

Additional Information

Gene ID	1584
Other Names	CYP11B1; S11BH; Cytochrome P450 11B1 mitochondrial; CYPXIB1; Cytochrome P-450c11; Cytochrome P450C11; Steroid 11-beta-hydroxylase; CYP11B2; Cytochrome P450 11B2 mitochondrial; Aldosterone synthase; ALDOS; Aldosterone-synthesizing enzyme; CYPXIB2; Cytochrome P-450Aldo; Cytochrome P-450C18; Steroid 18-hydroxylase
Target/Specificity	Recognizes endogenous levels of Cytochrome P450 11B1/2 protein.
Dilution	WB~~1/500 - 1/1000
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

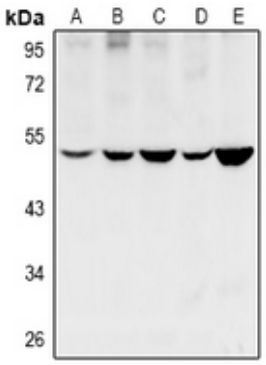
Name	CYP11B1 {ECO:0000303|PubMed:18215163, ECO:0000312|HGNC:HGNC:2591}
Function	A cytochrome P450 monooxygenase involved in the biosynthesis of adrenal corticoids (PubMed:12530636, PubMed:1518866, PubMed:1775135, PubMed:18215163, PubMed:23322723). Catalyzes a variety of reactions that are essential for many species, including detoxification, defense, and the formation of endogenous chemicals like steroid hormones. Steroid 11beta, 18- and 19-hydroxylase with preferred regioselectivity at 11beta, then 18, and lastly 19 (By similarity). Catalyzes the hydroxylation of 11-deoxycortisol and 11-deoxycorticosterone (21- hydroxyprogesterone) at 11beta position, yielding cortisol or corticosterone, respectively, but cannot produce aldosterone (PubMed:12530636, PubMed:1518866, PubMed:1775135, PubMed:18215163, PubMed:23322723). Mechanistically, uses molecular

	oxygen inserting one oxygen atom into a substrate for hydroxylation 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). Due to its lack of 18-oxidation activity, it is incapable of generating aldosterone (PubMed:23322723). Could also be involved in the androgen metabolic pathway (Probable).
Cellular Location	Mitochondrion inner membrane {ECO:0000250|UniProtKB:P14137}; Peripheral membrane protein {ECO:0000250|UniProtKB:P14137}
Tissue Location	Expressed in the zona fasciculata/reticularis of the adrenal cortex.

Background

Rabbit polyclonal antibody to Cytochrome P450 11B1/2

Images



Western blot analysis of Cytochrome P450 11B1/2 expression in HEK293T (A), LO2 (B), SGC7901 (C), PC12 (D), CT26 (E) whole cell lysates.