

CYP11B1/2 Polyclonal Antibody

Catalog # AP73407

Product Information

Application	WB
Primary Accession	P15538
Reactivity	Human
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
Dilution	WB--Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

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}

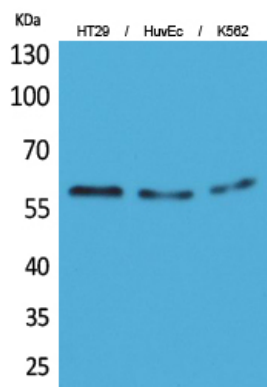
Tissue Location

Expressed in the zona fasciculata/reticularis of the adrenal cortex.

Background

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.

Images



Western Blot analysis of HT29, HuvEc, K562 cells using CYP11B1/2 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.