

**CYP11B1 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8723a****Specification**

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**CYP11B1 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P15538](#)**CYP11B1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 1584**Other Names**

Cytochrome P450 11B1, mitochondrial, CYPXIB1, Cytochrome P-450c11, Cytochrome P450C11, Steroid 11-beta-hydroxylase, CYP11B1, S11BH

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP8723a](/products/AP8723a) was selected from the N-term region of human CYP11B1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CYP11B1 Antibody (N-term) Blocking Peptide - 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: [1775135](http://www.uniprot.org/citations/1775135), PubMed: [1518866](http://www.uniprot.org/citations/1518866), PubMed: [12530636](http://www.uniprot.org/citations/12530636), PubMed: [18215163](http://www.uniprot.org/citations/18215163), PubMed: [23322723](http://www.uniprot.org/citations/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:<a href="http://www.uniprot.org/citations/18215163" target="\_blank">18215163</a>, PubMed:<a href="http://www.uniprot.org/citations/1518866" target="\_blank">1518866</a>, PubMed:<a href="http://www.uniprot.org/citations/1775135" target="\_blank">1775135</a>, PubMed:<a href="http://www.uniprot.org/citations/12530636" target="\_blank">12530636</a>, PubMed:<a href="http://www.uniprot.org/citations/23322723" target="\_blank">23322723</a>). 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:<a href="http://www.uniprot.org/citations/18215163" target="\_blank">18215163</a>). Due to its lack of 18-oxidation activity, it is incapable of generating aldosterone (PubMed:<a href="http://www.uniprot.org/citations/23322723" target="\_blank">23322723</a>). 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.

### **CYP11B1 Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **CYP11B1 Antibody (N-term) Blocking Peptide - Images**

### **CYP11B1 Antibody (N-term) Blocking Peptide - Background**

CYP11B1 is 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.

### **CYP11B1 Antibody (N-term) Blocking Peptide - References**

Helmberg,A., et.al., J. Clin. Endocrinol. Metab. 75 (5), 1278-1281 (1992)Nelson,D.R., et.al., Pharmacogenetics 14 (1), 1-18 (2004)