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# CYP21A2 Antibody (N-term) Blocking Peptide
**Synthetic peptide**
**Catalog # BP7880a**

## Specification

### CYP21A2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P08686

### CYP21A2 Antibody (N-term) Blocking Peptide - Additional Information

**Gene ID** 1589

**Other Names**
Steroid 21-hydroxylase, 21-OHase, Cytochrome P-450c21, Cytochrome P450 21, Cytochrome P450 XXI, Cytochrome P450-C21, Cytochrome P450-C21B, CYP21A2, CYP21, CYP21B

**Target/Specificity**
The synthetic peptide sequence used to generate the antibody <a href=/products/AP7880a>AP7880a</a> was selected from the N-term region of human CYP21A2. 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.

### CYP21A2 Antibody (N-term) Blocking Peptide - Protein Information

**Name** CYP21A2

**Synonyms** CYP21, CYP21B

**Function**
A cytochrome P450 monooxygenase that plays a major role in adrenal steroidogenesis. Catalyzes the hydroxylation at C-21 of progesterone and 17alpha-hydroxyprogesterone to respectively form 11- deoxycorticosterone and 11-deoxycortisol, intermediate metabolites in the biosynthetic pathway of mineralocorticoids and glucocorticoids (PubMed:<a href="http://www.uniprot.org/citations/25855791" target="_blank">25855791</a>, PubMed:<a href="http://www.uniprot.org/citations/10602386" target="_blank">10602386</a>, PubMed:<a href="http://www.uniprot.org/citations/16984992" target="_blank">16984992</a>, PubMed:<a href="http://www.uniprot.org/citations/22014889" target="_blank">22014889</a>, PubMed:<a href="http://www.uniprot.org/citations/27721825" target="_blank">27721825</a>).

Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR; NADPH-ferrihemoprotein reductase) (PubMed:<a href="http://www.uniprot.org/citations/25855791" target="_blank">25855791</a>).

**Cellular Location**
Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

## CYP21A2 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

## CYP21A2 Antibody (N-term) Blocking Peptide - Images

## CYP21A2 Antibody (N-term) Blocking Peptide - Background

CYP21A2 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 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 CYP21A2 gene cause congenital adrenal hyperplasia.

## CYP21A2 Antibody (N-term) Blocking Peptide - References

Guerra-Junior,G., Clin. Exp. Immunol. 155 (2), 182-188 (2009)Abid,F., Clin. Chem. Lab. Med. 46 (12), 1707-1713 (2008)Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)