

**CYP2C19 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP6710a****Specification**

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**CYP2C19 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P33261](#)**CYP2C19 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 1557**Other Names**

Cytochrome P450 2C19, 11413-, (R)-limonene 6-monooxygenase, (S)-limonene 6-monooxygenase, (S)-limonene 7-monooxygenase, CYP11C17, CYP11C19, Cytochrome P450-11A, Cytochrome P450-254C, Mephenytoin 4-hydroxylase, CYP2C19

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP6710a](/products/AP6710a) was selected from the N-term region of human CYP2C19. 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.

**CYP2C19 Antibody (N-term) Blocking Peptide - Protein Information****Name** CYP2C19**Function**

A cytochrome P450 monooxygenase involved in the metabolism of polyunsaturated fatty acids (PUFA) (PubMed: [18577768](http://www.uniprot.org/citations/18577768), PubMed: [19965576](http://www.uniprot.org/citations/19965576), PubMed: [20972997](http://www.uniprot.org/citations/20972997)). 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 (NADPH--hemoprotein reductase) (PubMed: [18577768](http://www.uniprot.org/citations/18577768), PubMed: [19965576](http://www.uniprot.org/citations/19965576), PubMed: [20972997](http://www.uniprot.org/citations/20972997)). Catalyzes

the hydroxylation of carbon-hydrogen bonds. Hydroxylates PUFA specifically at the omega-1 position (PubMed:<a href="http://www.uniprot.org/citations/18577768" target="\_blank">18577768</a>). Catalyzes the epoxidation of double bonds of PUFA (PubMed:<a href="http://www.uniprot.org/citations/20972997" target="\_blank">20972997</a>, PubMed:<a href="http://www.uniprot.org/citations/19965576" target="\_blank">19965576</a>). Also metabolizes plant monoterpenes such as limonene. Oxygenates (R)- and (S)-limonene to produce carveol and perillyl alcohol (PubMed:<a href="http://www.uniprot.org/citations/11950794" target="\_blank">11950794</a>). Responsible for the metabolism of a number of therapeutic agents such as the anticonvulsant drug S-mephenytoin, omeprazole, proguanil, certain barbiturates, diazepam, propranolol, citalopram and imipramine. Hydroxylates fenbendazole at the 4' position (PubMed:<a href="http://www.uniprot.org/citations/23959307" target="\_blank">23959307</a>).

#### **Cellular Location**

Endoplasmic reticulum membrane; Peripheral membrane protein. Microsome membrane; Peripheral membrane protein

#### **CYP2C19 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

#### **CYP2C19 Antibody (N-term) Blocking Peptide - Images**

#### **CYP2C19 Antibody (N-term) Blocking Peptide - Background**

CYP2C19 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 is known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, omeprazole, diazepam and some barbiturates. Polymorphism within its gene is associated with variable ability to metabolize mephenytoin, known as the poor metabolizer and extensive metabolizer phenotypes.

#### **CYP2C19 Antibody (N-term) Blocking Peptide - References**

Shuldiner,A.R., JAMA 302 (8), 849-857 (2009)Nelson,D.R., Pharmacogenetics 14 (1), 1-18 (2004)