

FMO2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP6645b**Specification**

FMO2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q99518](#)**FMO2 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 2327

Other Names

Dimethylaniline monooxygenase [N-oxide-forming] 2, Dimethylaniline oxidase 2, FMO 1B1, Pulmonary flavin-containing monooxygenase 2, FMO 2, FMO2

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6645b](/products/AP6645b) was selected from the C-term region of human FMO2. 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.

FMO2 Antibody (C-term) Blocking Peptide - Protein InformationName FMO2 ([HGNC:3770](#))**Function**

Catalyzes the oxidative metabolism of numerous xenobiotics, including mainly therapeutic drugs and insecticides that contain a soft nucleophile, most commonly nitrogen and sulfur and participates to their bioactivation (PubMed: [9804831](http://www.uniprot.org/citations/9804831), PubMed: [15294458](http://www.uniprot.org/citations/15294458), PubMed: [15144220](http://www.uniprot.org/citations/15144220), PubMed: [18948378](http://www.uniprot.org/citations/18948378), PubMed: [18930751](http://www.uniprot.org/citations/18930751)). Specifically catalyzes S-oxygenation of sulfur derived compounds such as thioureas-derived compounds, thioetherorganophosphates to their sulfenic acid (PubMed: [9804831](http://www.uniprot.org/citations/9804831), PubMed: [15144220](http://www.uniprot.org/citations/15144220)).

target="_blank">15144220). In vitro, catalyzes S-oxygenation of the second-line antitubercular drugs thiacetazone (TAZ) and ethionamide (ETA), forming a sulfinic acid and a carbodiimide via a postulated sulfenic acid intermediate (PubMed:18948378, PubMed:18930751). Also catalyzes S- oxygenation of the thioether-containing organophosphate insecticides, phorate and disulfoton (PubMed:15294458).

Cellular Location

Microsome membrane {ECO:0000250|UniProtKB:P17635}; Single-pass membrane protein.
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P17635}; Single-pass membrane protein

Tissue Location

Expressed in lung (at protein level). Expressed predominantly in lung, and at a much lesser extent in kidney. Also expressed in fetal lung, but not in liver, kidney and brain

FMO2 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

FMO2 Antibody (C-term) Blocking Peptide - Images

FMO2 Antibody (C-term) Blocking Peptide - Background

The flavin-containing monooxygenases are NADPH-dependent enzymes that catalyze the oxidation of many drugs and xenobiotics. In most mammals, there is a flavin-containing monooxygenase that catalyzes the N-oxidation of some primary alkylamines through an N-hydroxylamine intermediate. However, in humans, this enzyme is truncated and is probably rapidly degraded. The protein represents the truncated form and apparently has no catalytic activity.

FMO2 Antibody (C-term) Blocking Peptide - References

Krueger,S.K., Pharmacogenet. Genomics 15 (4), 245-256 (2005)