10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

Specification

FMO2 Antibody (C-term) Blocking Peptide - Product Information

Primary 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 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 Information

Name 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, PubMed:15294458, PubMed:15144220, PubMed:18948378, PubMed:18930751). Specifically catalyzes S-oxygenation of sulfur derived compounds such as thioureas-derived compounds, thioetherorganophosphates to their sulfenic acid (PubMed:9804831, PubMed:<a href="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)