# CYP2A13 Blocking Peptide

## PRODUCT OVERVIEW

| | |
|---|---|
| **Product Name** | CYP2A13, Blocking Peptide |
| **Full Product Name** | CYP2A13 Peptide |
| **Product Gene Name** | CYP2A13 blocking peptide |
| **Product Synonym Gene Name** | CPAD; CYP2A; CYPIIA13 |
| **Form/Format** | Lyophilized powder |
| **Preparation and Storage** | Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles. |
| **Antibody/Peptide Pairs** | CYP2A13 peptide (MBS3231007) is used for blocking the activity of CYP2A13 antibody (MBS3206044) |
| **Molecular Weight** | 54kDa |
| **OMIM** | 608055 |
| **Product Categories/Family for CYP2A13 blocking peptide** | Peptide |
| **Applications Tested/Suitable for CYP2A13 blocking peptide** | Western Blot (WB) |
| **Related Product Information for CYP2A13 blocking peptide** | This is a synthetic peptide designed for use in combination with anti-CYP2A13 antibody made<br><br>Target Description: CYP2A13 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. Although its endogenous substrate has not been determined, it is known to metabolize 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, a major nitrosamine specific to tobacco.This gene encodes 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. Although its endogenous substrate has not been determined, it is known to metabolize 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, a major nitrosamine specific to tobacco. This gene is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. |
| **Other Notes** | Small volumes of CYP2A13 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for CYP2A13 purchase** | MBS3231007 is a blocking peptide targeting CYP2A13. Also known as CYP2A13 Peptide. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP2A13. It may not necessarily be applicable to this product.

| | |
|---|---|
| **NCBI GI #** | 13699809 |
| **NCBI GeneID** | 1553 |
| **NCBI Accession #** | NP_000757 |
| **UniProt Primary Accession #** | Q16696 |
| **UniProt Related Accession #** | Q16696 |

| | |
|---|---|
| **GenBank Nucleotide #** | NM_000766 |
| **NCBI Official Full Name** | cytochrome P450 2A13 |
| **NCBI Official Synonym Full Names** | cytochrome P450 family 2 subfamily A member 13 |
| **NCBI Official Symbol** | CYP2A13 |
| **NCBI Official Synonym Symbols** | CPAD; CYP2A; CYPIIA13 |
| **UniProt Protein Name** | Cytochrome P450 2A13 |
| **UniProt Synonym Protein Names** | CYPIIA13 |
| **Protein Family** | Cytochrome |
| **UniProt Gene Name** | CYP2A13 |
| **UniProt Entry Name** | CP2AD_HUMAN |
| **NCBI Protein Information** | cytochrome P450 2A13 |
| **NCBI Summary for CYP2A13** | This gene encodes 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. Although its endogenous substrate has not been determined, it is known to metabolize 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone, a major nitrosamine specific to tobacco. This gene is part of a large cluster of cytochrome P450 genes from the CYP2A, CYP2B and CYP2F subfamilies on chromosome 19q. [provided by RefSeq, Jul 2008] |
| **UniProt Comments for CYP2A13** | CYP2A5: Exhibits a coumarin 7-hydroxylase activity. Active in the metabolic activation of hexamethylphosphoramide, N,N- dimethylaniline, 2'-methoxyacetophenone, N- nitrosomethylphenylamine, and the tobacco-specific carcinogen, 4- (methylnitrosamino)-1-(3-pyridyl)-1-butanone. Possesses phenacetin O-deethylation activity. Belongs to the cytochrome P450 family.<br><br>Protein type: Xenobiotic Metabolism - drug metabolism - other enzymes; Xenobiotic Metabolism - drug metabolism - cytochrome P450; EC 1.14.14.1; Oxidoreductase; Cofactor and Vitamin Metabolism - retinol; Secondary Metabolites Metabolism - caffeine<br><br>Chromosomal Location of Human Ortholog: 19q13.2<br><br>Cellular Component: endoplasmic reticulum membrane; intracellular membrane-bound organelle; cytoplasm<br><br>Molecular Function: iron ion binding; oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, reduced flavin or flavoprotein as one donor, and incorporation of one atom of oxygen; heme binding; arachidonic acid epoxygenase activity; steroid hydroxylase activity; oxygen binding<br><br>Biological Process: coumarin metabolic process; xenobiotic metabolic process; exogenous drug catabolic process; epoxygenase P450 pathway |
| **Research Articles on CYP2A13** | **1.** Oxidation of 1-chloropyrene by human CYP1 family and CYP2A subfamily cytochrome P450 enzymes: catalytic roles of two CYP1B1 and five CYP2A13 allelic variants |
| **Precautions** | All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines. |
| **Disclaimer** | While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice.<br><br>It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information. |

| | |
|---|---|
| **Product Note** | Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details. |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures.

**MyBioSource** | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/blocking-peptide/cyp2a13/3231007