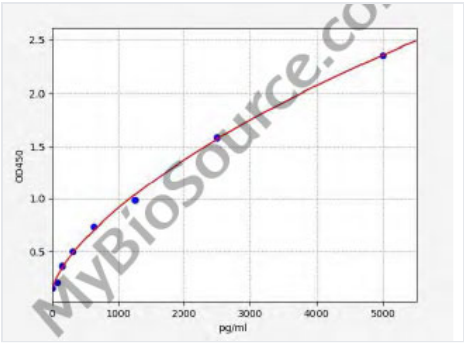
Cytochrome P450 3a4 (CYP3A4) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 3A4 (CYP3A4), ELISA Kit
Full Product Name	Human Cytochrome P450 3A4 ELISA Kit
Product Gene Name	CYP3A4 elisa kit
Product Synonym Names	CYP3A4 (Cytochrome P450 3A4)/CYP3A3 CYPIIIA3/CYPIIIA4/Nifedipine/8-cineole 2-exo-monooxygenase/Albendazole monooxygenase/Albendazole sulfoxidase/Cytochrome P450 3A3/Cytochrome P450 HLp/Cytochrome P450 NF-25/Cytochrome P450-PCN1
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	78.125-5000pg/ml
Sensitivity	46.875pg/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of CYP3A4. No significant cross-reactivity or interference between CYP3A4 and analogues was observed.
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Inter-assay Precision	CV<10%
Intra-assay Precision	CV<8%
Molecular Weight	57,343 Da
OMIM	124010
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CYP3A4 elisa kit	Principle of the Assay: This kit was based on sandwich enzyme-linked immune-sorbent assay technology. Capture antibody was pre-coated onto 96-well plates. And the biotin conjugated antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and washed with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the target amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of target can be calculated.
Other Notes	Small volumes of CYP3A4 elisa kit 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 CYP3A4 purchase	MBS762794 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 3A4 (CYP3A4) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CYP3A4. The ELISA analytical biochemical technique of the MBS762794 kit is based on CYP3A4 antibody-CYP3A4 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP3A4 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP3A4. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CYP3A4 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP3A4. It may not necessarily be applicable to this product.

NCBI GI #	322302351
NCBI GeneID	1576
NCBI Accession #	NP_001189784.1
UniProt Secondary Accession #	P05184; Q16757; Q9UK50
UniProt Related Accession #	P08684
GenBank Nucleotide #	NM_001202855.2
NCBI Official Full Name	cytochrome P450 3A4 isoform 2
NCBI Official Synonym Full Names	cytochrome P450 family 3 subfamily A member 4
NCBI Official Symbol	CYP3A4
NCBI Official Synonym Symbols	HLP; CP33; CP34; CYP3A; NF-25; CYP3A3; P450C3; CYPIIIA3; CYPIIIA4; P450PCN1
UniProt Protein Name	Cytochrome P450 3A4
UniProt Synonym Protein Names	1,8-cineole 2-exo-monooxygenase (EC:1.14.13.157); Albendazole monooxygenase (EC:1.14.13.32); Albendazole sulfoxidase; CYPIIIA3; CYPIIIA4; Cholesterol 25-hydroxylase
Protein Family	Cytochrome
UniProt Gene Name	CYP3A4
UniProt Synonym Gene Names	CYP3A3
UniProt Entry Name	CP3A4_HUMAN
NCBI Protein Information	cytochrome P450 3A4
NCBI Summary for CYP3A4	This gene encodes a member of the cytochrome P450 superfamily of enzymes. The cytochrome P450 proteins are monooxygenases that catalyze many reactions involved in drug metabolism and synthesis of cholesterol, steroids and other lipids. This protein localizes to the endoplasmic reticulum and its expression is induced by glucocorticoids and some pharmacological agents. This enzyme is involved in the metabolism of approximately half the drugs in use today, including acetaminophen, codeine, cyclosporin A, diazepam and erythromycin. The enzyme also metabolizes some steroids and carcinogens. This gene is part of a cluster of cytochrome P450 genes on chromosome 7q21.1. Previously another CYP3A gene, CYP3A3, was thought to exist; however, it is now thought that this sequence represents a transcript variant of CYP3A4. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Feb 2011]

UniProt Comments for CYP3A4	CYP3A4: Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It performs a variety of oxidation reactions (e.g. caffeine 8-oxidation, omeprazole sulphoxidation, midazolam 1'-hydroxylation and midazolam 4- hydroxylation) of structurally unrelated compounds, including steroids, fatty acids, and xenobiotics. Acts as a 1,8-cineole 2- exo-monooxygenase. The enzyme also hydroxylates etoposide. Belongs to the cytochrome P450 family. Protein type: Lipid Metabolism - linoleic acid; Cofactor and Vitamin Metabolism - retinol; Oxidoreductase; Cell surface; Membrane protein, integral; Xenobiotic Metabolism - metabolism by cytochrome P450; EC 1.14.14.1; Xenobiotic Metabolism - drug metabolism - other enzymes; Xenobiotic Metabolism - drug metabolism - cytochrome P450 Chromosomal Location of Human Ortholog: 7q21.1 Cellular Component: cytoplasm; endoplasmic reticulum membrane; integral to membrane; intracellular membrane-bound organelle Molecular Function: albendazole monooxygenase activity; enzyme binding; heme binding; iron ion binding; monooxygenase activity; oxidoreductase activity; oxygen binding; quinine 3-monooxygenase activity; steroid binding; steroid hydroxylase activity; taurochenodeoxycholate 6alpha-hydroxylase activity; testosterone 6-beta-hydroxylase activity; vitamin D3 25-hydroxylase activity Biological Process: alkaloid catabolic process; androgen metabolic process; drug catabolic process; drug metabolic process; exogenous drug catabolic process; heterocycle metabolic process; lipid metabolic process; monoterpenoid metabolic process; steroid catabolic process; steroid metabolic process; vitamin D metabolic process; xenobiotic metabolic process
Research Articles on CYP3A4	**1.** This is compatible with a Spanish founder effect and classifies CYP3A4 as a polymorphic enzyme.
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. 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/cyp3a4-human-elisa-kits/cytochrome-p450-3a4/762794