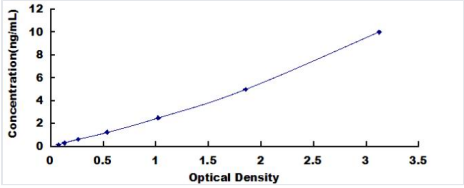
Cytochrome P450 1b1 (CYP1B1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 1B1 (CYP1B1), ELISA Kit
Full Product Name	Human Cytochrome P450 1B1 (CYP1B1) ELISA Kit
Product Gene Name	CYP1B1 elisa kit
Product Synonym Names	CP1B; GLC3A; Cytochrome P450,Family 1,Subfamily B,Polypeptide 1; Glaucoma 3,Primary Infantile
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue Homogenates, Cell Lysates or Other Biological Fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.063ng/mL
Preparation and Storage	For unopened kits: All the reagents should be kept at 4 degree C upon receipt. For opened kits: Once the kit is opened, the remaining reagents still need to be stored according to the above storage conditions. In addition, return the unused wells to the foil pouch containing the desiccant pack and reseal along entire edge of zip-seal.
Molecular Weight	60,846 Da
OMIM	137750
3D Structure	ModBase 3D Structure for Q16678
RTU ELISA Kit's Advantage	The Ready-To-Use (RTU) Kits require fewer steps in setup and take less time to run. Detection Solutions are pre-diluted and total incubation time is shorter than many other ELISA Kits.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CYP1B1 elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CYP1B1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CYP1B1. Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. After TMB substrate solution is added, only those wells that contain CYP1B1, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm ± 10nm. The concentration of CYP1B1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CYP1B1 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 CYP1B1 purchase	MBS458734 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 1B1 (CYP1B1) 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 CYP1B1. The ELISA analytical biochemical technique of the MBS458734 kit is based on CYP1B1 antibody-CYP1B1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP1B1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP1B1. 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 CYP1B1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP1B1. It may not necessarily be applicable to this product.

NCBI GI #	189491763
NCBI GeneID	1545
NCBI Accession #	NP_000095.2
UniProt Primary Accession #	Q16678
UniProt Secondary Accession #	Q5TZW8; Q93089; Q9H316
UniProt Related Accession #	Q16678
GenBank Nucleotide #	NM_000104.3
NCBI Official Full Name	cytochrome P450 1B1
NCBI Official Synonym Full Names	cytochrome P450 family 1 subfamily B member 1
NCBI Official Symbol	CYP1B1
NCBI Official Synonym Symbols	CP1B; ASGD6; GLC3A; CYPIB1; P4501B1
UniProt Protein Name	Cytochrome P450 1B1
UniProt Synonym Protein Names	CYPIB1
Protein Family	Cytochrome
UniProt Gene Name	CYP1B1
NCBI Protein Information	cytochrome P450 1B1
NCBI Summary for CYP1B1	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. The enzyme encoded by this gene localizes to the endoplasmic reticulum and metabolizes procarcinogens such as polycyclic aromatic hydrocarbons and 17beta-estradiol. Mutations in this gene have been associated with primary congenital glaucoma; therefore it is thought that the enzyme also metabolizes a signaling molecule involved in eye development, possibly a steroid. [provided by RefSeq, Jul 2008]
UniProt Comments for CYP1B1	Cytochromes P450 are a group of heme-thiolate monooxygenases. In liver microsomes, this enzyme is involved in an NADPH-dependent electron transport pathway. It oxidizes a variety of structurally unrelated compounds, including steroids, fatty acids, retinoid and xenobiotics. Preferentially oxidizes 17beta-estradiol to the carcinogenic 4-hydroxy derivative, and a variety of procarcinogenic compounds to their activated forms, including polycyclic aromatic hydrocarbons. Promotes angiogenesis by removing cellular oxygenation products, thereby decreasing oxidative stress, release of antiangiogenic factor THBS2, then allowing endothelial cells migration, cell adhesion and capillary morphogenesis. These changes are concommitant with the endothelial nitric oxide synthase activity and nitric oxide synthesis. Plays an important role in the regulation of perivascular cell proliferation, migration, and survival through modulation of the intracellular oxidative state and NF-kappa-B expression and/or activity, during angiogenesis. Contributes to oxidative homeostasis and ultrastructural organization and function of trabecular meshwork tissue through modulation of POSTN expression.
Research Articles on CYP1B1	**1.** Data provide evidence that CYP1B1 plays a critical role in polycyclic aromatic hydrocarbon-mediated DNA damage.

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