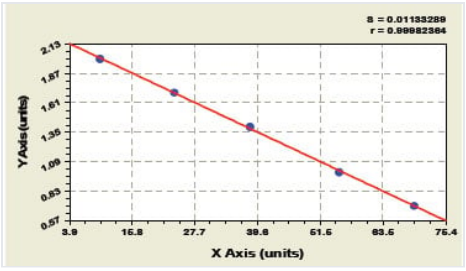
Cytochrome P450 2e1 (CYP2E1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 2E1 (CYP2E1), ELISA Kit
Full Product Name	Human Cytochrome P450 2E1 ELISA Kit
Product Gene Name	CYP2E1 elisa kit
Species Reactivity	Human
Assay Type	Competitive or Sandwich
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	0.5-10ng/mL
Sensitivity	0.1ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	56,849 Da
OMIM	124040
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Intended Uses	This CYP2E1 ELISA kit is a 1.5 hour solid-phase ELISA designed for the quantitative determination of Human CYP2E1. This ELISA kit for research use only, not for therapeutic applications!
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for CYP2E1 elisa kit	**Principle of the assay:** CYP2E1 ELISA kit applies the competitive enzyme immunoassay technique utilizing a monoclonal anti-CYP2E1 antibody and an CYP2E1-HRP conjugate. The assay sample and buffer are incubated together with CYP2E1-HRP conjugate in pre-coated plate for one hour. After the incubation period, the wells are decanted and washed five times. The wells are then incubated with a substrate for HRP enzyme. The product of the enzyme-substrate reaction forms a blue colored complex. Finally, a stop solution is added to stop the reaction, which will then turn the solution yellow. The intensity of color is measured spectrophotometrically at 450nm in a microplate reader. The intensity of the color is inversely proportional to the CYP2E1 concentration since CYP2E1 from samples and CYP2E1-HRP conjugate compete for the anti-CYP2E1 antibody binding site. Since the number of sites is limited, as more sites are occupied by CYP2E1 from the sample, fewer sites are left to bind CYP2E1-HRP conjugate. A standard curve is plotted relating the intensity of the color (O.D.) to the concentration of standards. The CYP2E1 concentration in each sample is interpolated from this standard curve.
Other Notes	Small volumes of CYP2E1 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 CYP2E1 purchase	MBS726109 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 2E1 (CYP2E1) 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 CYP2E1. The ELISA analytical biochemical technique of the MBS726109 kit is based on CYP2E1 antibody-CYP2E1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP2E1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP2E1. 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 CYP2E1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP2E1. It may not necessarily be applicable to this product.

NCBI GI #	10834998
NCBI GeneID	1571
NCBI Accession #	NP_000764.1
UniProt Secondary Accession #	Q5VZD5; Q6NWT9; Q9UK47
UniProt Related Accession #	P05181
GenBank Nucleotide #	NM_000773.3
NCBI Official Full Name	cytochrome P450 2E1
NCBI Official Synonym Full Names	cytochrome P450, family 2, subfamily E, polypeptide 1
NCBI Official Symbol	CYP2E1
NCBI Official Synonym Symbols	CPE1; CYP2E; P450-J; P450C2E
UniProt Protein Name	Cytochrome P450 2E1
UniProt Synonym Protein Names	4-nitrophenol 2-hydroxylase (EC:1.14.13.n7); CYPIIE1; Cytochrome P450-JCleaved into the following chain:Cytochrome P450 2E1, N-terminally processed
Protein Family	Cytochrome
UniProt Gene Name	CYP2E1
UniProt Synonym Gene Names	CYP2E
UniProt Entry Name	CP2E1_HUMAN
NCBI Protein Information	cytochrome P450 2E1; CYPIIE1; cytochrome P450-J; microsomal monooxygenase; xenobiotic monooxygenase; 4-nitrophenol 2-hydroxylase; flavoprotein-linked monooxygenase; cytochrome P450, subfamily IIE (ethanol-inducible), polypeptide 1
NCBI Summary for CYP2E1	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 and is induced by ethanol, the diabetic state, and starvation. The enzyme metabolizes both endogenous substrates, such as ethanol, acetone, and acetal, as well as exogenous substrates including benzene, carbon tetrachloride, ethylene glycol, and nitrosamines which are premutagens found in cigarette smoke. Due to its many substrates, this enzyme may be involved in such varied processes as gluconeogenesis, hepatic cirrhosis, diabetes, and cancer. [provided by RefSeq, Jul 2008]

UniProt Comments for CYP2E1	CYP2E1: Metabolizes several precarcinogens, drugs, and solvents to reactive metabolites. Inactivates a number of drugs and xenobiotics and also bioactivates many xenobiotic substrates to their hepatotoxic or carcinogenic forms. Belongs to the cytochrome P450 family. Protein type: Lipid Metabolism - arachidonic acid; Oxidoreductase; Lipid Metabolism - linoleic acid; Mitochondrial; EC 1.14.13.n7; Xenobiotic Metabolism - drug metabolism - cytochrome P450; Xenobiotic Metabolism - metabolism by cytochrome P450; Endoplasmic reticulum Chromosomal Location of Human Ortholog: 10q26.3 Cellular Component: intrinsic to endoplasmic reticulum membrane; Golgi membrane; endoplasmic reticulum membrane; intracellular membrane-bound organelle; mitochondrion; cytoplasm Molecular Function: oxidoreductase activity, acting on paired donors, with incorporation or reduction of molecular oxygen, NADH or NADPH as one donor, and incorporation of one atom of oxygen; enzyme binding; iron ion binding; heme 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; arachidonic acid epoxygenase activity; oxidoreductase activity; steroid hydroxylase activity; oxygen binding; monooxygenase activity Biological Process: steroid metabolic process; triacylglycerol metabolic process; response to ethanol; response to ozone; xenobiotic metabolic process; exogenous drug catabolic process; monoterpenoid metabolic process; epoxygenase P450 pathway; heterocycle metabolic process; drug metabolic process; response to organic nitrogen
Research Articles on CYP2E1	**1.** In India, the risk of ATDH is increased in persons with 'A' allele at SNP rs1799930 in the NAT2 gene, but is not associated with rs2031920 polymorphism in the CYP2E1 gene.
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