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	Sandwich
Samples	Serum, Plasma and Tissue Homogenate
Detection Range	0.5 ng/ml - 16 ng/ml.
Sensitivity	0.1 ng/ml.
Specificity	No significant cross-reactivity or interference between this analyte and analogues is observed.
Preparation and Storage	Store all reagents at 2-8 degree C
Inter-assay Precision	Inter-assay CV (%) is less than 15%. [CV(%) = SD/mean ×100].
Intra-assay Precision	Intra-assay CV (%) is less than 15%.
Molecular Weight	56,849 Da
Chromosome Location	Chromosome: 10; NC_000010.10 (135340867..135352620). Location: 10q26.3
OMIM	124040
3D Structure	ModBase 3D Structure for P05181
Related Product Information for CYP2E1 elisa kit	Background/Introduction: This Quantitative Sandwich ELISA kit is only for in vitro research use only! This kit is intended to be used for determination the level of CYP2E1 (hereafter termed this analyte) in undiluted original Human serum, plasma and tissue homogenate samples.
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	MBS020655 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 MBS020655 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(%).

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 Primary Accession #	P05181

UniProt Secondary Accession #	Q5VZD5; 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: EC 1.14.13.n7; Mitochondrial; Xenobiotic Metabolism - drug metabolism - cytochrome P450; Lipid Metabolism - linoleic acid; Lipid Metabolism - arachidonic acid; Xenobiotic Metabolism - metabolism by cytochrome P450; Endoplasmic reticulum; Oxidoreductase Chromosomal Location of Human Ortholog: 10q26.3 Cellular Component: Golgi membrane; intrinsic to endoplasmic reticulum membrane; endoplasmic reticulum membrane; mitochondrion; intracellular membrane-bound organelle; 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; steroid hydroxylase activity; oxidoreductase activity; oxygen binding; monooxygenase activity Biological Process: steroid metabolic process; triacylglycerol metabolic process; response to ethanol; xenobiotic metabolic process; response to ozone; exogenous drug catabolic process; monoterpenoid metabolic process; epoxygenase P450 pathway; heterocycle metabolic process; response to organic nitrogen; drug metabolic process
Research Articles on CYP2E1	**1.** Identify CYP2E1 as the main liver enzyme responsible for nicotinamide N-oxidation.

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