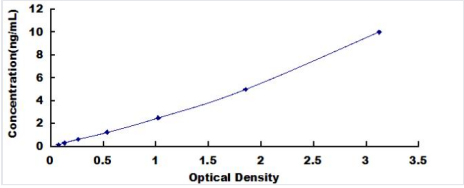
Cytochrome P450 1a1 (CYP1A1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 1A1 (CYP1A1), ELISA Kit
Full Product Name	Human Cytochrome P450 1A1 (CYP1A1) ELISA Kit
Product Gene Name	CYP1A1 elisa kit
Product Synonym Names	CYP1; AHH; AHRR; CP11; CYP1; P1-450; P450-C; P450DX; Cytochrome P450,Subfamily I(Aromatic Compound-Inducible),Polypeptide 1
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, Plasma, Tissue Homogenates, Cell Lysates or Other Biological Fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.056ng/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	18,441 Da
OMIM	108330
3D Structure	ModBase 3D Structure for P04798
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 CYP1A1 elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CYP1A1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CYP1A1. 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 CYP1A1, 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 CYP1A1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CYP1A1 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 CYP1A1 purchase	MBS458729 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 1A1 (CYP1A1) 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 CYP1A1. The ELISA analytical biochemical technique of the MBS458729 kit is based on CYP1A1 antibody-CYP1A1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP1A1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP1A1. 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 CYP1A1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP1A1. It may not necessarily be applicable to this product.

NCBI GI #	4503199
NCBI GeneID	1543
NCBI Accession #	NP_000490.1
UniProt Primary Accession #	P04798
UniProt Secondary Accession #	Q53G18; A4F3V9; A4F3W0
UniProt Related Accession #	P04798
GenBank Nucleotide #	NM_000499.4
NCBI Official Full Name	cytochrome P450 1A1 isoform 1
NCBI Official Synonym Full Names	cytochrome P450 family 1 subfamily A member 1
NCBI Official Symbol	CYP1A1
NCBI Official Synonym Symbols	AHH; AHRR; CP11; CYP1; CYPIA1; P1-450; P450-C; P450DX
UniProt Protein Name	Cytochrome P450 1A1
UniProt Synonym Protein Names	CYPIA1; Cytochrome P450 form 6; Cytochrome P450-C; Cytochrome P450-P1
Protein Family	Cytochrome
UniProt Gene Name	CYP1A1
NCBI Protein Information	cytochrome P450 1A1
NCBI Summary for CYP1A1	This gene, CYP1A1, 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 its expression is induced by some polycyclic aromatic hydrocarbons (PAHs), some of which are found in cigarette smoke. The enzyme's endogenous substrate is unknown; however, it is able to metabolize some PAHs to carcinogenic intermediates. The gene has been associated with lung cancer risk. A related family member, CYP1A2, is located approximately 25 kb away from CYP1A1 on chromosome 15. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jan 2016]
UniProt Comments for CYP1A1	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, and xenobiotics.
Research Articles on CYP1A1	**1.** genetic association studies in population of postmenopausal Mexican-Mestizo women: Data suggest SNPs in CYP1A1 (rs1799814, rs1048943; but not rs1056836 in CYP1B1) are associated with postmenopausal osteoporosis in the population studied; SNPs in CYP1A1 are associated with low bone mineral density in lumbar spine and femur neck. (CYP1A1 = aryl hydrocarbon hydroxylase CYP1A1; CYP1B1 = aryl hydrocarbon hydroxylase CYP1B1)
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