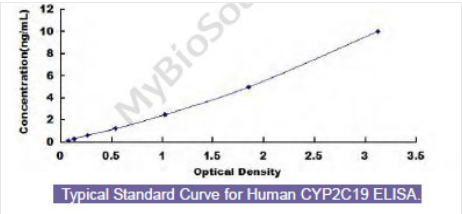
Cytochrome P450 2c19 (CYP2C19) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 2C19 (CYP2C19), ELISA Kit
Full Product Name	Human Cytochrome P450 2C19 (CYP2C19) ELISA Kit
Product Gene Name	CYP2C19 elisa kit
Product Synonym Names	CPCJ; CYP2C; CYPIIC17; CYPIIC19; P450C2C; Cytochrome P450-11A; Cytochrome P450-254C; Mephenytoin 4-hydroxylase; limonene 6-monooxygenase
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Serum, plasma, tissue homogenates, cell lysates, cell culture supernates or other biological fluids
Detection Range	0.156-10ng/mL
Sensitivity	<0.056ng/mL.
Specificity	This assay has high sensitivity and excellent specificity for detection of CYP2C19. No significant cross-reactivity or interference between CYP2C19 and analogues was observed.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CYP2C19 were tested on 3 different plates, 8 replicates in each plate. CV(%) = SD/meanX100. Inter-Assay: CV<12%
Intra-assay Precision	Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level CYP2C19 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	55,931 Da
OMIM	M61854 mRNA
3D Structure	ModBase 3D Structure for P33261
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CYP2C19 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for the in vitro quantitative measurement of CYP2C19 in human serum, plasma, tissue homogenates, cell lysates, cell culture supernates or other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CYP2C19. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CYP2C19. 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 CYP2C19, 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 CYP2C19 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CYP2C19 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 CYP2C19 purchase	MBS457013 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 2C19 (CYP2C19) 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 CYP2C19. The ELISA analytical biochemical technique of the MBS457013 kit is based on CYP2C19 antibody-CYP2C19 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP2C19 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP2C19. 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 CYP2C19 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP2C19. It may not necessarily be applicable to this product.

NCBI GI #	4503219
NCBI GeneID	1557
NCBI Accession #	NP_000760.1
UniProt Primary Accession #	P33261
UniProt Secondary Accession #	P33259; Q8WZB1; Q8WZB2; Q9UCD4
UniProt Related Accession #	P33261
GenBank Nucleotide #	NM_000769.3
NCBI Official Full Name	cytochrome P450 2C19
NCBI Official Synonym Full Names	cytochrome P450 family 2 subfamily C member 19
NCBI Official Symbol	CYP2C19
NCBI Official Synonym Symbols	CPCJ; CYP2C; P450C2C; CYPIIC17; CYPIIC19; P450IIC19
UniProt Protein Name	Cytochrome P450 2C19
UniProt Synonym Protein Names	(R)-limonene 6-monooxygenase (EC:1.14.14.53
Protein Family	Cytochrome
UniProt Gene Name	CYP2C19
NCBI Protein Information	cytochrome P450 2C19
NCBI Summary for CYP2C19	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 known to metabolize many xenobiotics, including the anticonvulsive drug mephenytoin, omeprazole, diazepam and some barbiturates. Polymorphism within this gene is associated with variable ability to metabolize mephenytoin, known as the poor metabolizer and extensive metabolizer phenotypes. The gene is located within a cluster of cytochrome P450 genes on chromosome 10q24. [provided by RefSeq, Jul 2008]
UniProt Comments for CYP2C19	Responsible for the metabolism of a number of therapeutic agents such as the anticonvulsant drug S-mephenytoin, omeprazole, proguanil, certain barbiturates, diazepam, propranolol, citalopram and imipramine.
Research Articles on CYP2C19	**1.** Nerolidol induces endoplasmic reticulum stress and apoptosis in Human HepG2 Cells through extensive CYP2C19 and CYP1A2 mediated drug oxidation.
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