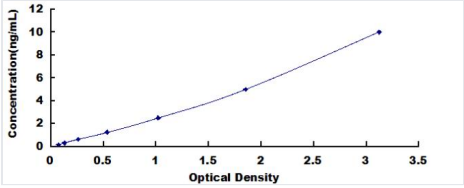
Cytochrome P450 27a1 (CYP27A1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 27A1 (CYP27A1), ELISA Kit
Full Product Name	Human Cytochrome P450 27A1 (CYP27A1) ELISA Kit
Product Gene Name	CYP27A1 elisa kit
Product Synonym Names	CP27; CTX; CYP27; Sterol 27-Hydroxylase,Cerebrotendinous Xanthomatosis; Vitamin D(3) 25-hydroxylase; 5-beta-cholestane-3-alpha,7-alpha,12-alpha-triol 27-hydroxylase
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue Homogenates, Cell Lysates or Other Biological Fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.061ng/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	60,235 Da
OMIM	213700
3D Structure	ModBase 3D Structure for Q02318
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 CYP27A1 elisa kit	Test Principle: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CYP27A1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CYP27A1. 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 CYP27A1, 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 CYP27A1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CYP27A1 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 CYP27A1 purchase	MBS458737 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 27A1 (CYP27A1) 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 CYP27A1. The ELISA analytical biochemical technique of the MBS458737 kit is based on CYP27A1 antibody-CYP27A1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP27A1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP27A1. 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 CYP27A1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP27A1. It may not necessarily be applicable to this product.

NCBI GI #	4503211
NCBI GeneID	1593
NCBI Accession #	NP_000775.1
UniProt Primary Accession #	Q02318
UniProt Secondary Accession #	Q6LDB4; Q86YQ6; A8K303
UniProt Related Accession #	Q02318
GenBank Nucleotide #	NM_000784.3
NCBI Official Full Name	sterol 26-hydroxylase, mitochondrial
NCBI Official Synonym Full Names	cytochrome P450 family 27 subfamily A member 1
NCBI Official Symbol	CYP27A1
NCBI Official Synonym Symbols	CTX; CP27; CYP27
UniProt Protein Name	Sterol 26-hydroxylase, mitochondrial
UniProt Synonym Protein Names	5-beta-cholestane-3-alpha,7-alpha,12-alpha-triol 27-hydroxylase; Cytochrome P-450C27/25; Cytochrome P450 27; Sterol 27-hydroxylase; Vitamin D(3) 25-hydroxylase
Protein Family	Sterol 26-hydroxylase
UniProt Gene Name	CYP27A1
UniProt Synonym Gene Names	CYP27
NCBI Protein Information	sterol 26-hydroxylase, mitochondrial
NCBI Summary for CYP27A1	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 mitochondrial protein oxidizes cholesterol intermediates as part of the bile synthesis pathway. Since the conversion of cholesterol to bile acids is the major route for removing cholesterol from the body, this protein is important for overall cholesterol homeostasis. Mutations in this gene cause cerebrotendinous xanthomatosis, a rare autosomal recessive lipid storage disease. [provided by RefSeq, Jul 2008]
UniProt Comments for CYP27A1	Catalyzes the first step in the oxidation of the side chain of sterol intermediates; the 27-hydroxylation of 5-beta-cholestane-3-alpha,7-alpha,12-alpha-triol. Has also a vitamin D3-25-hydroxylase activity.
Research Articles on CYP27A1	**1.** Increased maternal and fetal cholesterol efflux capacity and placental CYP27A1 expression in preeclampsia
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