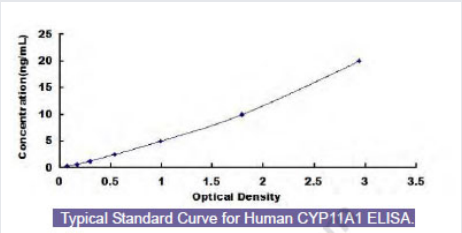
Cytochrome P450 11a1 (CYP11A1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome P450 11A1 (CYP11A1), ELISA Kit
Full Product Name	Human Cytochrome P450 11A1 (CYP11A1) ELISA Kit
Product Gene Name	CYP11A1 elisa kit
Product Synonym Names	CYP11A; P450SCC; Cholesterol desmolase; Cholesterol Side Chain Cleavage Enzyme; Cytochrome P450 Family 11 Subfamily A Polypeptide 1
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Tissue homogenates or other biological fluids
Detection Range	0.312-20ng/mL
Sensitivity	<0.133ng/mL.
Specificity	This assay has high sensitivity and excellent specificity for detection of CYP11A1. No significant cross-reactivity or interference between CYP11A1 and analogues was observed.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level CYP11A1 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 CYP11A1 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	42,152 Da
OMIM	M14565 mRNA
3D Structure	ModBase 3D Structure for P05108
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CYP11A1 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for the in vitro quantitative measurement of CYP11A1 in human tissue homogenates or other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to CYP11A1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to CYP11A1. 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 CYP11A1, 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 CYP11A1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of CYP11A1 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 CYP11A1 purchase	MBS457010 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450 11A1 (CYP11A1) 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 CYP11A1. The ELISA analytical biochemical technique of the MBS457010 kit is based on CYP11A1 antibody-CYP11A1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP11A1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP11A1. 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 CYP11A1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP11A1. It may not necessarily be applicable to this product.

NCBI GI #	153218646
NCBI GeneID	1583
NCBI Accession #	NP_000772.2
UniProt Primary Accession #	P05108
UniProt Secondary Accession #	Q15081; Q16805; Q8N1A7; A8K8D5; B3KPU8; G3XAD7
UniProt Related Accession #	P05108
GenBank Nucleotide #	NM_000781.2
NCBI Official Full Name	cholesterol side-chain cleavage enzyme, mitochondrial isoform a
NCBI Official Synonym Full Names	cytochrome P450 family 11 subfamily A member 1
NCBI Official Symbol	CYP11A1
NCBI Official Synonym Symbols	CYP11A; CYPXIA1; P450SCC
UniProt Protein Name	Cholesterol side-chain cleavage enzyme, mitochondrial
UniProt Synonym Protein Names	CYPXIA1; Cholesterol desmolase; Cytochrome P450 11A1; Cytochrome P450(scc)
Protein Family	Cholesterol side-chain cleavage enzyme
UniProt Gene Name	CYP11A1
UniProt Synonym Gene Names	CYP11A
NCBI Protein Information	cholesterol side-chain cleavage enzyme, mitochondrial
NCBI Summary for CYP11A1	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 mitochondrial inner membrane and catalyzes the conversion of cholesterol to pregnenolone, the first and rate-limiting step in the synthesis of the steroid hormones. Two transcript variants encoding different isoforms have been found for this gene. The cellular location of the smaller isoform is unclear since it lacks the mitochondrial-targeting transit peptide. [provided by RefSeq, Jul 2008]
UniProt Comments for CYP11A1	Catalyzes the side-chain cleavage reaction of cholesterol to pregnenolone.
Research Articles on CYP11A1	**1.** Active Site Structures of CYP11A1 in the Presence of Its Physiological Substrates and Alterations upon Binding of Adrenodoxin
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