Cytochrome P450, Family 26, Subfamily A, Polypeptide 1 (CYP26A1) ELISA Kit for Human

PRODUCT OVERVIEW

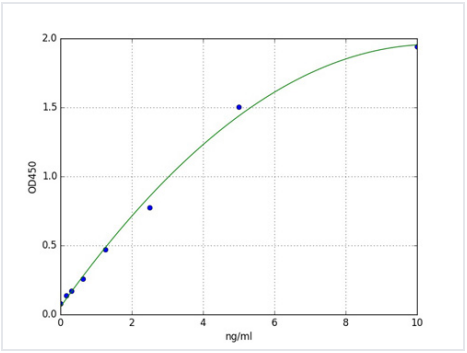
Product Name	Cytochrome P450, family 26, subfamily A, polypeptide 1 (CYP26A1), ELISA Kit
Full Product Name	Human Cytochrome P450, family 26, subfamily A, polypeptide 1 ELISA Kit
Product Gene Name	CYP26A1 elisa kit
Product Synonym Names	CYP26A1/Cytochrome P450 26A1/Retinoic acid-metabolizing cytochrome/Cytochrome P450 retinoic acid-inactivating 1/Cytochrome P450RAI/hP450RAI/Retinoic acid 4-hydroxylase/CP26/CYP26
Species Reactivity	Human
Assay Type	Sandwich ELISA, Double Antibody
Samples	Serum, Plasma, Cell Culture Supernatant, cell or tissue lysate, Other liquid samples
Detection Range	0.156-10ng/ml
Sensitivity	0.094ng/ml
Preparation and Storage	Store entire kit at 2-8C for short-term. For longer-term, please store the microplate & standard at -20C, while the remaining reagents can be stored at 2-8C
Molecular Weight	48,558 Da
OMIM	602239
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for CYP26A1 elisa kit	Principle of the Assay||This kit was based on sandwich enzyme-linked immune-sorbent assay technology anti-Human CYP26A1 antibody was pre-coated onto 96-well plates. And the biotin conjugated anti-Human CYP26A1 antibody was used as detection antibodies. The standards, test samples and biotin conjugated detection antibody were added to the wells subsequently, and wash with wash buffer. HRP-Streptavidin was added and unbound conjugates were washed away with wash buffer. TMB substrates were used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the Human CYP26A1 amount of sample captured in plate. Read the O.D. absorbance at 450nm in a microplate reader, and then the concentration of Human CYP26A1 can be calculated.
Other Notes	Small volumes of CYP26A1 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 CYP26A1 purchase	MBS761693 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome P450, family 26, subfamily A, polypeptide 1 (CYP26A1) 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 CYP26A1. The ELISA analytical biochemical technique of the MBS761693 kit is based on CYP26A1 antibody-CYP26A1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYP26A1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYP26A1. 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 Data & Standard Curve

Results of a typical standard run of a Human CYP26A1 ELISA Kit are shown below. This standard curve was generated at our lab for demonstration purpose only. Each user should obtain their own standard curve as per experiment. (N/A=not applicable)

X	ng/ml	0	0.156	0.313	0.625	1.25	2.5	5	10
Y	OD450	0.072	0.176	0.264	0.438	0.618	1.085	1.808	2.066

Typical Testing Data of CYP26A1 elisa kit



Typical Standard Curve of CYP26A1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYP26A1. It may not necessarily be applicable to this product.

NCBI GI #	16933530
NCBI GeneID	1592
NCBI Accession #	NP_000774.2
UniProt Secondary Accession #	Q5VXH9; Q5VXI0; B3KNI4
UniProt Related Accession #	O43174
GenBank Nucleotide #	NM_000783.3
NCBI Official Full Name	cytochrome P450 26A1 isoform 1
NCBI Official Synonym Full Names	cytochrome P450 family 26 subfamily A member 1
NCBI Official Symbol	CYP26A1
NCBI Official Synonym Symbols	CP26; CYP26; P450RAI; P450RAI1
UniProt Protein Name	Cytochrome P450 26A1
UniProt Synonym Protein Names	Cytochrome P450 retinoic acid-inactivating 1; Cytochrome P450RAI; hP450RAI; Retinoic acid 4-hydroxylase; Retinoic acid-metabolizing cytochrome
Protein Family	Cytochrome
UniProt Gene Name	CYP26A1
UniProt Synonym Gene Names	CYP26; P450RAI1; Cytochrome P450RAI; hP450RAI
UniProt Entry Name	CP26A_HUMAN
NCBI Protein Information	cytochrome P450 26A1
NCBI Summary for CYP26A1	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 endoplasmic reticulum protein acts on retinoids, including all-trans-retinoic acid (RA), with both 4-hydroxylation and 18-hydroxylation activities. This enzyme regulates the cellular level of retinoic acid which is involved in regulation of gene expression in both embryonic and adult tissues. Two alternatively spliced transcript variants of this gene, which encode the distinct isoforms, have been reported. [provided by RefSeq, Jul 2008]

UniProt Comments for CYP26A1	CYP26A1: Plays a key role in retinoic acid metabolism. Acts on retinoids, including all-trans-retinoic acid (RA) and its stereoisomer 9-cis-RA. Capable of both 4-hydroxylation and 18- hydroxylation. Responsible for generation of several hydroxylated forms of RA, including 4-OH-RA, 4-oxo-RA and 18-OH-RA. Belongs to the cytochrome P450 family. Protein type: Endoplasmic reticulum; Oxidoreductase; EC 1.14.-.-; Cofactor and Vitamin Metabolism - retinol Chromosomal Location of Human Ortholog: 10q23-q24 Cellular Component: endoplasmic reticulum membrane Molecular Function: heme binding; iron ion binding; oxygen binding; retinoic acid 4-hydroxylase activity; retinoic acid binding Biological Process: metabolic process; negative regulation of retinoic acid receptor signaling pathway; vitamin metabolic process; xenobiotic metabolic process
Research Articles on CYP26A1	**1.** Molecular recognition of CYP26A1 binding pockets and structure-activity relationship studies for design of potent and selective retinoic acid metabolism blocking agents has been described.
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