Cytochrome B5 (CYTB5) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome b5 (CYTB5), ELISA Kit
Full Product Name	Human Cytochrome b5 ELISA Kit
Product Gene Name	CYTB5 elisa kit
Species Reactivity	Human
Assay Type	Competitive
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	1.0-25ng/mL
Sensitivity	0.1ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	14,169 Da
OMIM	613218
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for CYTB5 elisa kit	MBS746232 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome b5 (CYTB5) 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 CYTB5. The ELISA analytical biochemical technique of the MBS746232 kit is based on CYTB5 antibody-CYTB5 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CYTB5 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CYTB5. 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(%).
Other Notes	Small volumes of CYTB5 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CYTB5. It may not necessarily be applicable to this product.

NCBI GI #	41281768
NCBI GeneID	1528
NCBI Accession #	NP_683725.1
UniProt Secondary Accession #	Q6IB14; A8MV91; F8WEU4
UniProt Related Accession #	P00167
GenBank Nucleotide #	NM_148923.3
NCBI Official Full Name	cytochrome b5 isoform 1
NCBI Official Synonym Full Names	cytochrome b5 type A (microsomal)

NCBI Official Symbol	CYB5A
NCBI Official Synonym Symbols	CYB5; MCB5
UniProt Protein Name	Cytochrome b5
UniProt Synonym Protein Names	Microsomal cytochrome b5 type A; MCB5
Protein Family	Cytochrome b5 domain-containing protein
UniProt Gene Name	CYB5A
UniProt Synonym Gene Names	CYB5; MCB5
UniProt Entry Name	CYB5_HUMAN
NCBI Protein Information	cytochrome b5; type 1 cyt-b5
NCBI Summary for CYTB5	The protein encoded by this gene is a membrane-bound cytochrome that reduces ferric hemoglobin (methemoglobin) to ferrous hemoglobin, which is required for stearyl-CoA-desaturase activity. Defects in this gene are a cause of type IV hereditary methemoglobinemia. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]
UniProt Comments for CYTB5	CYB5A: Cytochrome b5 is a membrane bound hemoprotein which function as an electron carrier for several membrane bound oxygenases. Defects in CYB5A are the cause of methemoglobinemia CYB5A-related (METHB-CYB5A). A form of methemoglobinemia, a hematologic disease characterized by the presence of excessive amounts of methemoglobin in blood cells, resulting in decreased oxygen carrying capacity of the blood, cyanosis and hypoxia. Belongs to the cytochrome b5 family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 18q23 Cellular Component: endoplasmic reticulum membrane; mitochondrial outer membrane; membrane; integral to membrane Molecular Function: cytochrome-c oxidase activity; enzyme binding; aldo-keto reductase activity; metal ion binding; heme binding Biological Process: vitamin metabolic process; response to cadmium ion; L-ascorbic acid metabolic process; water-soluble vitamin metabolic process Disease: Methemoglobinemia Type Iv
Research Articles on CYTB5	**1.** Cytochrome b5 seems to play the key role in the formation of lipid-radical cycles in membranes.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/cytb5-human-elisa-kits/cytochrome-b5/746232