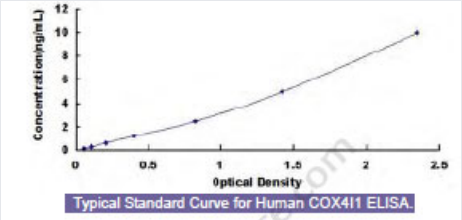
Cytochrome C Oxidase Subunit IV (COX4I1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cytochrome C Oxidase Subunit IV Isoform 1 (COX4I1), ELISA Kit
Full Product Name	Human Cytochrome C Oxidase Subunit IV Isoform 1 (COX4I1) ELISA Kit
Product Gene Name	COX4I1 elisa kit
Product Synonym Names	COX4; Cytochrome c oxidase polypeptide IV; Cytochrome c oxidase subunit 4 isoform 1, mitochondrial
Species Reactivity	Human
Assay Type	Sandwich
Samples	Tissue homogenates, cell lysates and other biological fluids.
Detection Range	0.156-10ng/mL
Sensitivity	0.058ng/mL
Specificity	This assay has high sensitivity and excellent specificity for detection of COX4I1. No significant cross-reactivity or interference between COX4I1 and analogues was observed.
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Inter-assay Precision	Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level COX4I1 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 COX4I1 were tested 20 times on one plate, respectively. Intra-Assay: CV<10%
Molecular Weight	19,577 Da
OMIM	M21575 mRNA
3D Structure	ModBase 3D Structure for P13073
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for COX4I1 elisa kit	Intended Uses: The kit is a sandwich enzyme immunoassay for in vitro quantitative measurement of COX4I1 in human tissue homogenates, cell lysates and other biological fluids. Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to COX4I1. Standards or samples are then added to the appropriate microtiter plate wells with a biotin-conjugated antibody preparation specific to COX4I1. 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 COX4I1, 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 COX4I1 in the samples is then determined by comparing the O.D. of the samples to the standard curve.
Other Notes	Small volumes of COX4I1 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 COX4I1 purchase	MBS451610 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cytochrome C Oxidase Subunit IV Isoform 1 (COX4I1) 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 COX4I1. The ELISA analytical biochemical technique of the MBS451610 kit is based on COX4I1 antibody-COX4I1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect COX4I1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, COX4I1. 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 COX4I1 elisa kit

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for COX4I1. It may not necessarily be applicable to this product.

NCBI GI #	974005293
NCBI GeneID	1327
NCBI Accession #	NP_001305715.1
UniProt Primary Accession #	P13073
UniProt Secondary Accession #	Q6P666; B2R4J2; D3DUM7
UniProt Related Accession #	P13073
GenBank Nucleotide #	NM_001318786.1
NCBI Official Full Name	cytochrome c oxidase subunit 4 isoform 1, mitochondrial isoform 1
NCBI Official Synonym Full Names	cytochrome c oxidase subunit 4I1
NCBI Official Symbol	COX4I1
NCBI Official Synonym Symbols	COX4; COXIV; COX4-1; COXIV-1; COX IV-1
UniProt Protein Name	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial
UniProt Synonym Protein Names	Cytochrome c oxidase polypeptide IV; Cytochrome c oxidase subunit IV isoform 1; COX IV-1
Protein Family	Cytochrome c oxidase
UniProt Gene Name	COX4I1
UniProt Synonym Gene Names	COX4; COX IV-1
NCBI Protein Information	cytochrome c oxidase subunit 4 isoform 1, mitochondrial

NCBI Summary for COX4I1	Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer and proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit IV isoform 1 of the human mitochondrial respiratory chain enzyme. It is located at the 3' of the NOC4 (neighbor of COX4) gene in a head-to-head orientation, and shares a promoter with it. Pseudogenes related to this gene are located on chromosomes 13 and 14. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]
UniProt Comments for COX4I1	This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.
Research Articles on COX4I1	**1.** We provide evidence that COX4-1 controls BMI1 expression via a redox mechanism
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/human-elisa-kits/cytochrome-c-oxidase-subunit-iv-isoform-1-cox4i1/451610