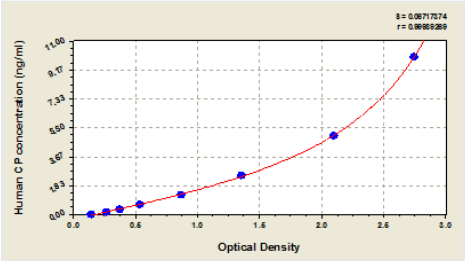
Ceruloplasmin (Ferroxidase) (CP) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	ceruloplasmin (ferroxidase) (CP), ELISA Kit
Full Product Name	Human Ceruloplasmin, CP/CER ELISA Kit
Product Gene Name	CP elisa kit
Product Synonym Names	Human Ceruloplasmin; CP/CER ELISA Kit; CP-2; ceruloplasmin; ceruloplasmin (ferroxidase)
Species Reactivity	Human
Assay Type	Sandwich
Samples	Serum, plasma, cell culture supernates, urine, saliva
Detection Range	0.156 ng/ml-10 ng/ml
Sensitivity	0.039 ng/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of Human CP. No significant cross-reactivity or interference between Human CP and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV% is less than 8% Three samples of known concentration were tested twenty times on one plate to assess. Inter-assay Precision (Precision between assays): CV% is less than 10% Three samples of known concentration were tested in twenty assays to assess.
Molecular Weight	122,205 Da
OMIM	gene 604290
3D Structure	ModBase 3D Structure for P00450
Detection Wavelength	450 nm
Sample Volume	50-100ul
Protein Biological Process 1	Transport
Protein Biological Process 2	Anion transport
Protein Biological Process 3	Copper transport
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CP elisa kit	**For Sample** For the quantitative determination of human ceruloplasmin (CP/CER) concentrations in serum, plasma, cell culture supernates, urine, saliva. **PRINCIPLE OF THE ASSAY** This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for CP has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any CP present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for CP is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of CP bound in the initial step. The color development is stopped and the intensity of the color is measured.
Product References and Citations for CP elisa kit	Electrochemical Magnetic Immunosensors for the Determination of Ceruloplasmin. Irene Ojeda, María Moreno-Guzmán, Araceli González-Cortés, Paloma Yáñez-Sedeño and José M. Pingarrón (2013)

Other Notes	Small volumes of CP 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 CP purchase	MBS701656 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the ceruloplasmin (ferroxidase) (CP) 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 CP. The ELISA analytical biochemical technique of the MBS701656 kit is based on CP antibody-CP antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CP antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CP. 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 CP elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	4557485
NCBI GeneID	1356
NCBI Accession #	NP_000087.1
UniProt Primary Accession #	P00450
UniProt Secondary Accession #	Q14063; Q2PP18; Q9UKS4
UniProt Related Accession #	P00450
GenBank Nucleotide #	NM_000096.3
NCBI Official Full Name	ceruloplasmin
NCBI Official Synonym Full Names	ceruloplasmin (ferroxidase)
NCBI Official Symbol	CP
NCBI Official Synonym Symbols	CP-2
UniProt Protein Name	Ceruloplasmin
UniProt Synonym Protein Names	Ferroxidase
Protein Family	Ceruloplasmin
UniProt Gene Name	CP
UniProt Entry Name	CERU_HUMAN
NCBI Protein Information	ceruloplasmin
NCBI Summary for CP	The protein encoded by this gene is a metalloprotein that binds most of the copper in plasma and is involved in the peroxidation of Fe(II)transferrin to Fe(III) transferrin. Mutations in this gene cause aceruloplasminemia, which results in iron accumulation and tissue damage, and is associated with diabetes and neurologic abnormalities. Two transcript variants, one protein-coding and the other not protein-coding, have been found for this gene. [provided by RefSeq, Feb 2012]

UniProt Comments for CP	**Function:** Ceruloplasmin is a blue, copper-binding (6-7 atoms per molecule) glycoprotein. It has ferroxidase activity oxidizing Fe2+ to Fe3+ without releasing radical oxygen species. It is involved in iron transport across the cell membrane. Provides Cu2+ ions for the ascorbate-mediated deaminase degradation of the heparan sulfate chains of GPC1. May also play a role in fetal lung development or pulmonary antioxidant defense **Catalytic activity:** 4 Fe2+ + 4 H+ + O2 = 4 Fe3+ + 2 H2O. **Cofactor:** Binds 6 copper ions per monomer.
Research Articles on CP	**1.** The main result of this meta-analysis is that copper not bound to ceruloplasmin appears signi fi cantly increased in subjects with Alzheimer's disease when compared to healthy controls.
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.
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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.

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