abcam

Product datasheet

Rat Ceruloplasmin ELISA Kit (CERP) ab108819

1 Image

Overview

Product name Rat Ceruloplasmin ELISA Kit (CERP)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall				4.8%

Inter-assay

Sample	n	Mean	SD	CV%
Overall				8.3%

Sample type Cell culture supernatant, Urine, Serum, Plasma, Cell Lysate

Assay type Sandwich (quantitative)

Sensitivity = 74 ng/ml

Range 1 ng/ml - 10 ng/ml

Recovery 95 %

Assay time 4h 00m

Assay duration Multiple steps standard assay

Species reactivity **Reacts with:** Rat

Product overview Abcam's Ceruloplasmin (CERP) rat *in vitro* ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Ceruloplasmin in urine and cell culture supernatants.

A Ceruloplasmin specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently a Ceruloplasmin specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Conjugate is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of Ceruloplasmin captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

Platform Microplate

Properties

Storage instructions Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
100X Streptavidin-Peroxidase Conjugate	1 x 80µl
10X Diluent N Concentrate	1 x 30ml
20X Wash Buffer Concentrate	2 x 30ml
50X Biotinylated Rat Ceruloplasmin Antibody	1 x 120µl
Ceruloplasmin Microplate (12 x 8 well strips)	1 unit
Ceruloplasmin Standard	1 vial
Chromogen Substrate	1 x 7ml
Sealing Tapes	3 units
Stop Solution	1 x 11ml

Function Ceruloplasmin is a blue, copper-binding (6-7 atoms per molecule) glycoprotein. It has ferroxidase activity oxidizing Fe(2+) to Fe(3+) without releasing radical oxygen species. It is involved in iron transport across the cell membrane.

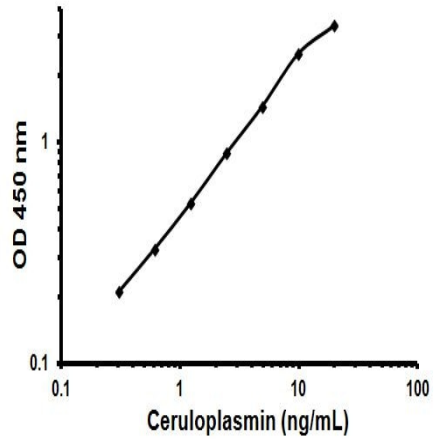
Tissue specificity Expressed by the liver and secreted in plasma.

Involvement in disease Defects in CP are the cause of aceruloplasminemia (ACERULOP) [MIM:604290]. It is an autosomal recessive disorder of iron metabolism characterized by iron accumulation in the brain as well as visceral organs. Clinical features consist of the triad of retinal degeneration, diabetes mellitus and neurological disturbances.
Note=Ceruloplasmin levels are decreased in Wilson disease, in which copper cannot be incorporated into ceruloplasmin in liver because of defects in the copper-transporting ATPase 2.

Sequence similarities Belongs to the multicopper oxidase family.
Contains 3 F5/8 type A domains.
Contains 6 plastocyanin-like domains.

Cellular localization Secreted.

Images



Typical Standard Curve

Representative Standard Curve using ab108819.

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