

Product Specification Sheet

Rat Ceruloplasmin (Cp) Protein

Cat. # CP175-N-25

Rat Cp purified protein

SIZE: 25 ug

Ceruloplasmin (Cp) is a plasma metalloprotein synthesized and secreted by the liver. Cp (also known as ferroxidase; iron (II):oxygen oxidoreductase, EC 1.16.3.1) is a blue alpha-2-glycoprotein that binds 90 to 95% of plasma copper and has 6 or 7 cupric ions per molecule. It is involved in peroxidation of Fe(II) transferrin to form Fe(III) transferrin. Human Cp is a single polypeptide chain (1065 aa, 135 kDa; chromosome 8q21.13-q23.1) structurally similar to factors V and VIII. Cp also has abundant expression in specific populations of glial cells within the brain. Hereditary Cp deficiency have profound iron accumulation in most tissues. Cp ^{-/-} mice showed no abnormalities in cellular iron uptake but a striking impairment in the movement of iron out of reticuloendothelial cells and hepatocytes. Cp may play an essential physiologic role in determining the rate of iron efflux from cells with mobilizable iron stores.

Source of Antigen and Antibodies

Cp was purified from rat serum. Purified **human Cp** was used as immunogen to produce polyclonal antibodies in **rabbits (cat # CP17-A)**.

Purified rat Cp protein (cat # CP17-N-25) is formulated 50mM potassium phosphate, 20 mM Tris, 1 mM EDTA and supplied in this buffer or lyophilized (see lot sp conc on the vial). Purified Cp is ~120,000 kda and it is >95% pure.

This preparation can be used for ELISA or diluted in other appropriate buffers.

Store frozen in suitable aliquots.

Purified protein

25 ug/vial
solution
lyophilized powder

Reconstitute powder in appropriate buffer in at least 100 ug/ml.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for lyophilized items.

General References: (1). Koschinsky ML et al (1986) PNAS 83, 5086-5090; Daimon M et al (1995) BBRC 208, 1028-1035; Yang F et al (1986) PNAS 83, 3257-3261; Yakahashi N et al (1984) PNAS 81, 390-394; YANG Fm et al (1990) JBC 265, 10780-10785

*This product is for in vitro research use only.

IRP1-2, HFE, Frataxin, Hephaidin, Hephaestin, NRAMPs, USF2, Ferritin, Light and heavy chains, ferritin and B2-M ELISA, Tfr1-2, ceruloplasmin, B2-Micro globulin.

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