

Product Specification Sheet

Human Ceruloplasmin (Cp) Antibodies

Cat. # CP11-S	Rabbit Anti-Human Cp antiserum	SIZE: 100 ul
Cat. # CP12-A	Goat Anti-Human Cp IgG#2	SIZE: 100 ug
Cat. # CP11-C	Human Cp purified protein WB +ve control	SIZE: 100 ul

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.

Purified human Cp protein is formulated in SDS-PAGE sample buffer (reduced) to be used as a **positive control (Cat #CP11-C)** for various anti-Cp antibodies using Western blotting. It is ready to be loaded on gels after heating (10 ul/lane). This preparation is biologically inactive and it is not suitable for other applications such as ELISA. We provide the purified protein **cat #CP15-N** in a buffer (100 mM KCl, 20 mM e-aminocaproic acid, pH 6.8 buffer) at 100 ug/100ul). This preparation can be used for ELISA or diluted in other appropriate buffers.

Source of Antigen and Antibodies

#CP11-S

Antigen	Cp was purified from human plasma
Ab Host/type	Rabbit, Polyclonal antiserum # CP11-S
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	Cat # 20009-1, Rabbit (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

#CP12-A

Antigen	Purified bovine pancreatic DNase 1 (EC 3.1.21.1)
Ab Host/type	Goat, Polyclonal purified IgG, purified over antigen-agarose (Cat # CP12-A)
2-Ab	Rabbit Anti-goat IgG-HRP conjugate Cat # 30220 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20011-1, Goat (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

00ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

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 powder.

Recommended Usage

Western Blotting (1:1K-5K for antiserum or ascites using Chemiluminescence technique). Cp is ~135 kDa.

ELISA (1:100K; using 50-100 ng control antigen/well).

Histochemistry & Immunofluorescence: Not tested

Specificity & Cross-reactivity

The antibodies have been tested in human but crossreactivity is expected with mouse and rat Cp. Antibody cross-reactivity in various species has not been studied. Western blot +ve control should be run to identify the appropriate Cp band and find optimum antibody dilutions.

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.

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