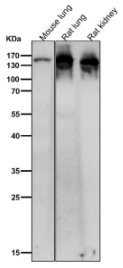
Ceruloplasmin Antibody / CP [clone 31C62] (FY12531)

Catalog No.	Formulation	Size
FY12531	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

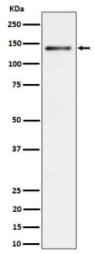
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	31C62
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P00450
Applications	Western Blot : 1:500-1:2000
Limitations	This Ceruloplasmin antibody is available for research use only.



All lanes use the Ceruloplasmin antibody at 1:2K dilution for 1 hour at room temperature. Predicted molecular weight ~130 kDa.



Western blot analysis of Ceruloplasmin expression in rat liver cell lysate using Ceruloplasmin antibody. Predicted molecular weight ~130 kDa.

Description

Ceruloplasmin antibody detects ceruloplasmin, a copper binding glycoprotein encoded by the CP gene. Ceruloplasmin is synthesized in the liver and secreted into the plasma, where it carries more than 95 percent of circulating copper. It functions as a ferroxidase enzyme that oxidizes Fe2 plus to Fe3 plus, enabling iron binding to transferrin. Through this activity, ceruloplasmin maintains systemic iron and copper balance, supports antioxidant defense, and regulates oxidative stress.

Ceruloplasmin antibody is widely applied in studies of metabolism, neurodegeneration, and inflammatory disease. Abnormal ceruloplasmin levels are associated with Wilson disease, aceruloplasminemia, and other disorders of copper metabolism. In addition, altered expression occurs in Parkinson disease and Alzheimer disease, where oxidative stress contributes to pathogenesis. By detecting ceruloplasmin, researchers can evaluate copper homeostasis and its links to neurological disorders.

In western blot assays, ceruloplasmin antibody detects protein bands of the expected size in serum and liver extracts. Immunohistochemistry highlights hepatocyte production and distribution in tissues, while ELISA applications support quantification of ceruloplasmin levels in plasma. These methods make ceruloplasmin antibody useful for both clinical and experimental research.

Ceruloplasmin also acts as an acute phase reactant, with levels rising during inflammation and infection. Elevated ceruloplasmin is observed in autoimmune disease, cardiovascular disease, and cancer. By applying ceruloplasmin antibody, scientists can study how changes in CP expression reflect inflammation and metabolic stress.

Ceruloplasmin antibody from NSJ Bioreagents offers reliable specificity for studying copper and iron metabolism, oxidative stress, and disease mechanisms. Its performance across multiple assays makes it a valuable resource for metabolic and neurological research.

Application Notes

Optimal dilution of the Ceruloplasmin antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Ceruloplasmin was used as the immunogen for the Ceruloplasmin antibody.

Storage

Store the Ceruloplasmin antibody at -20oC.