

## Recombinant Mouse Ceruloplasmin/CP protein (His Tag)

**Catalog Number: PDEM100246**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

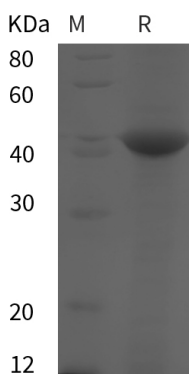
### Description

<b>Species</b>	Mouse
<b>Source</b>	E.coli-derived Mouse Ceruloplasmin protein Tyr729-Gly1061, with an N-terminal His
<b>Calculated MW</b>	36.5 kDa
<b>Observed MW</b>	40 kDa
<b>Accession</b>	Q61147
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

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

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