For Research Use Only

Recombinant Mouse Transferrin protein (His Tag)

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Catalog Number: Eg1066

Basic Information

Species: Mouse
Purity: >90 %, SDS-PAGE
Tag: His Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/μg protein, LAL method

Source:
HEK293-derived Mouse Transferrin protein Val20-His697 (Accession# Q921I1) with a His tag at the C-terminus.

GeneID:
22041

Accession:
Q921I1

Predicted Molecular Mass:
76.0 kDa

SDS-PAGE:
65-80 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Transferrin, also known as Trf, is a crucial iron-binding transport protein. It plays a vital role in iron homeostasis by binding and transporting iron throughout the body, particularly from the sites of absorption to the sites of storage and utilization. Transferrin is primarily synthesized by the liver. It can bind two ferric iron (Fe^{3+}) ions, each associated with a bicarbonate anion, which helps maintain iron in a soluble form and minimizes its redox activity. Transferrin also interacts with clotting factors and plays a central role in coagulation balance. It has been shown to potentiate the enzymatic activity of thrombin and FXIIa and inhibit antithrombin (AT) independently of iron. Elevated levels of transferrin have been associated with atherosclerosis, and it has been found in increased amounts in the plasma of mice fed a high-fat diet, which correlates with atherosclerotic plaque development.

References

1. Julia T Bu. et al. (2015). Biometals. 28(3):473-480.
2. Xiaopeng Tang. et al.(2020). Cell Res. 30(2):119-132.
3. Konstantinos Gkouvatsos. et al. (2012). Biochim Biophys Acta. 1820(3):188-202.

Synonyms

Beta-1 metal-binding globulin, Serotransferrin, Siderophilin, Tf, Trf

For technical support and original validation data for this product please contact

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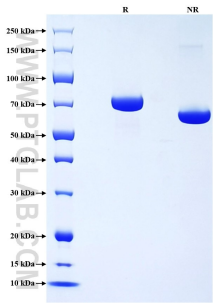
Selected Validation Data



Purity of Recombinant Mouse Transferrin was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.