

For Research Use Only

Recombinant Mouse Mup1 protein (rFc Tag) (HPLC verified)



Catalog Number: Eg3024

Basic Information

Species:
Mouse

Purity:
>90 %, SDS-PAGE
 >90 %, SEC-HPLC

Tag:
rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE
 >90 %, SEC-HPLC

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

Source:
HEK293-derived Mouse Mup1 protein Glu19-Glu180 (Accession# P11588) with a rabbit IgG Fc tag at the C-terminus.

GeneID:
17840

Accession:
P11588

Predicted Molecular Mass:
44.7 kDa

SDS-PAGE:
45-50 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

Mup1, or major urinary protein 1, is a member of the lipocalin family and is abundantly secreted into the circulation by the liver. It binds to lipophilic pheromones and is excreted in urine, mediating chemical communication in rodents. Beyond its role in chemical signaling, Mup1 has been identified as a regulator of glucose and lipid metabolism. Mup1 expression is significantly reduced in genetic and dietary fat-induced obesity and diabetes. Mup1 has been shown to suppress hepatic gluconeogenesis and promote energy expenditure in skeletal muscle by stimulating mitochondrial biogenesis and function. In chronic alcohol-induced metabolic disorders, Mup1 mediates the alleviation of hepatic endoplasmic reticulum (ER) stress and insulin resistance.

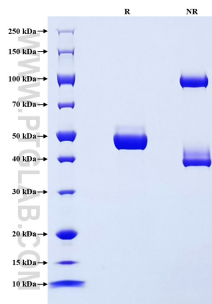
References

- 1.Zhou Y. et al. (2009). J Biol Chem. 284(17):11152-11159.
- 2.Zhou Y. et al. (2010). Vitam Horm. 83:151-163.
- 3.Zhang H. et al. (2024). Gut Microbes. 16(1):2367342.

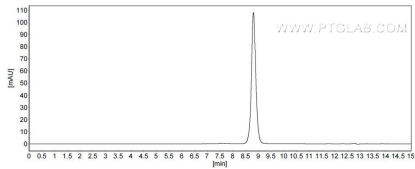
Synonyms

Major urinary protein 1

Selected Validation Data



Purity of Recombinant Mouse Mup1 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.



The purity of Mouse Mup1 was greater than 90% as determined by SEC-HPLC.