For Research Use Only

Recombinant Mouse Umod protein (rFc Tag)

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Catalog Number: Eg2748

Basic Information

Species: Mouse

Purity: >90 %, SDS-PAGE

Tag: rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE

Endotoxin Level:
<1.0 EU/ μ g protein, LAL method

Source:
HEK293-derived Mouse Umod protein Asn25-Ala618 (Accession# Q91X17) with a rabbit IgG Fc tag at the C-terminus.

GeneID:
22242

Accession:
Q91X17

Predicted Molecular Mass:
91.0 kDa

SDS-PAGE:

Formulation:
Lyophilized from sterile 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℃ to -80℃ as lyophilized proteins.
- 3 months, -20℃ to -80℃ 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

Uromodulin (Tamm-Horsfall protein) is the most abundant urinary protein in physiological conditions, and it is exclusively produced by epithelial cells lining the kidney tubule. It plays a crucial role in renal physiology, including regulation of magnesium and calcium homeostasis, protection against urinary tract infections, and modulation of renal inflammation. Uromodulin also acts as a biomarker for kidney function, with urinary levels correlating with renal health and disease progression. Genetic variants in the UMOD gene are associated with chronic kidney disease, kidney stones, and hypertension, highlighting its importance in renal pathophysiology. Additionally, Uromodulin has been implicated in the regulation of renal cytokines and the protection against ischemic injury.

References

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2. Kipp, Anne, and Eric Olinger. Clinical journal of the American Society of Nephrology: CJASN vol. 16,1 (2020): 150-1
3. Schaeffer, Céline et al. Annual review of physiology vol. 83 (2021): 477-501.
4. Mary, Sheon et al. Hypertension (Dallas, Tex. : 1979) vol. 79,11 (2022): 2419-2429.
5. Karagiannidis, Artemios G et al. Nephrology, dialysis, transplantation: official publication of the European Dialys

Synonyms

Selected Validation Data