

Cystatin C Human NATIVE, Human Urine

Product Data Sheet

Type: Native

Source: Human urine

Species: Human

Other names: Post G-globulin, Cystatin-3, Neuroendocrine basic polypeptide, Gamma-trace, Post-gamma-globulin, CST3

Cat. No.:

RD172009100

(0.1 mg)

Description

Native protein isolated from human urine.

Introduction to the Molecule

Cystatin C is a non-glycosylated basic single-chain protein consisting of 120 amino acids with a molecular weight of 13.36 kDa and is characterized by two disulfide bonds in the carboxy-terminal region. It belongs to the cystatins superfamily which inactivates lysosomal cysteine proteinases, e.g. cathepsin B, H, K, L and S. Imbalance between Cystatin C and cysteine proteinases is associated with inflammation, renal failure, cancer, Alzheimer's disease, multiple sclerosis and hereditary Cystatin C amyloid angiopathy. Its increased level has been found in patients with autoimmune diseases, with colorectal tumors and in patients on dialysis. Serum Cystatin C seems to be better marker of glomerular filtration rate than creatinine. On the other hand, low concentration of Cystatin C presents a risk factor for secondary cardiovascular events.

Research topic

Neural tissue markers, Renal disease

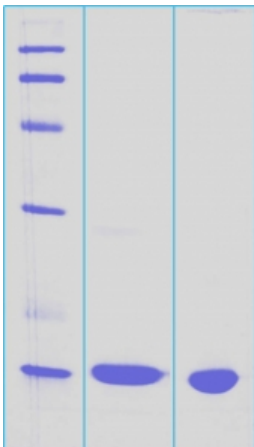
Source

Human urine

Purity

Purity as determined by densitometric image analysis: >96%

SDS-PAGE gel



12% SDS-PAGE separation of Human Cystatin C

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa

2. reduced and heated sample, 5µg/lane

3. non-reduced and non-heated sample, 5µg/lane

Endotoxin

< 1.0 EU/ug

Formulation

Filtered (0,4 µm) and lyophilised from 0.6 mg/mL in 20mM NH₄HCO₃ with traces of buffer salts.

Reconstitution

Add 20mM NH₄HCO₃ to prepare a working stock solution of approximately 0.5 mg/mL. Product is not sterile! Please

filter the product by an appropriate sterile filter before using it in the cell culture.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store lyophilized protein at -80°C. Lyophilized protein remains stable until the expiry date when stored at -80°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

Quality Control Test

- BCA to determine quantity of the protein.
- SDS PAGE to determine purity of the protein.
- LAL to determine quantity of endotoxin.

Applications

ELISA, Western blotting

Note

This product is intended for research use only. All starting material used for purification was tested and found negative for HIV 1 and 2 antibodies, Hepatitis B surface antigen and HCV antibodies.

References to this Product

- Abdul-Hussien H, Soekhoe RG, Weber E, von der Thusen JH, Kleemann R, Mulder A, van Bockel JH, Hanemaaijer R, Lindeman JH. *Collagen degradation in the abdominal aneurysm: a conspiracy of matrix metalloproteinase and cysteine collagenases.* Am J Pathol. 2007 Mar;170 (3):809-17
- Kaseda R, Iino N, Hosojima M, Takeda T, Hosaka K, Kobayashi A, Yamamoto K, Suzuki A, Kasai A, Suzuki Y, Gejyo F, Saito A. *Megalin-mediated endocytosis of cystatin C in proximal tubule cells.* [Biochem Biophys Res Commun](#) . Jun 15;357(4):1130-4 (2007)

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