Cystatin C Human E. coli

Product Data Sheet

Type: Recombinant
Tag: His
Source: E. coli
Species: Human
Other names: Post G-globulin, Cystatin-3, Neuroendocrine basic polypeptide, Gamma-trace, Post-gamma-globulin, CST3

Cat. No.:

RD172009025-H	(0.025 mg)
RD172009100-H	(0.1 mg)

Description

Total 129 AA. Mw: 14.5 kDa (calculated). UniProtKB acc.no. P01034. N-terminal His-tag, 9 extra AA (highlighted).

Introduction to the Molecule

Cystatin C is a non-glycosilated 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 superfamilly 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 autoimune diseases, with colorectal tumors and in patients on dyalisis. 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

Amino Acid Sequence

MKHHHHHHAS SPGKPPRLVG GPMDASVEEE GVRRALDFAV GEYNKASNDM YHSRALQVVR ARKQIVAGVN YFLDVELGRT TCTKTQPNLD NCPFHDQPHL KRKAFCSFQI YAVPWQGTMT LSKSTCQDA

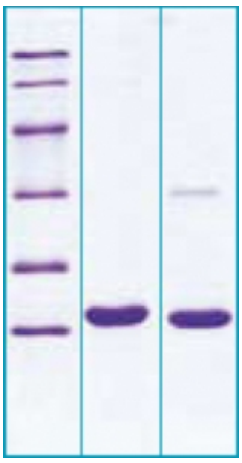
Source

E. coli

Purity

Purity as determined by densitometric image analysis: >95%

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, 2.5µg/lane
3. non-reduced and non-heated sample, 2.5µg/lane

Endotoxin

< 1.0 EU/ug

Formulation

Filtered (0,4 µm) and lyophilized from 0.5 mg/mL in 20mM Tris buffer, 50 mM NaCl, pH 7.5

Reconstitution

Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

Shipping

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

Storage, Stability/Shelf Life

Store the 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; however it does show trace of degradation (below 5% of total product) after one week 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.

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