



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.:

RD172009100-H (0.1 mg)

Description

Total 129 AA. Mw: 14.5 kDa (calculated). N-terminal His-tag, 9 extra AA (highlighted).

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

Amino Acid Sequence

MKHHHHHHASP-GKPPRLVG GPMDASVEEE GVRALDFAV GEYNKASNDM YHSRALQVVR ARKQIVAGVN YFLDVELGRT
TCTKTQPNLD NCPFHDQPHL KRKAFCSFQI YAVPWQGTMT LSKSTCQDA

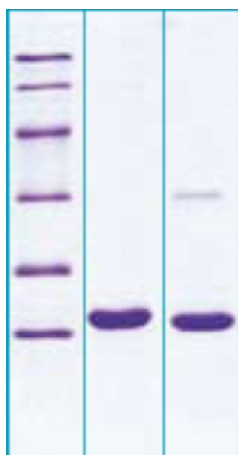
Source

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. 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 the lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°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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