



## Cystatin C Canine E. coli

### Product Data Sheet

**Type:** Recombinant

**Source:** E. coli

**Species:** Canine

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

**Cat. No.:**

RD472009100 (0.1 mg)

### Description

Total 133 AA. MW: 14,85 kDa (calculated). N-Terminal His-tag, 8 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

**MKHHHHHH**AS PGAGRRGSRP GAVGGAVDAD VGEEGVQQAL DFAVREYNRA SNDAYHSRAL RVLARKQVV SGMNYFLEVE  
IGRTRCTKSQ PNLDNCPFHD QPHLMRKTLC SFQIYTPVWL GKTSLVKSSC QDV

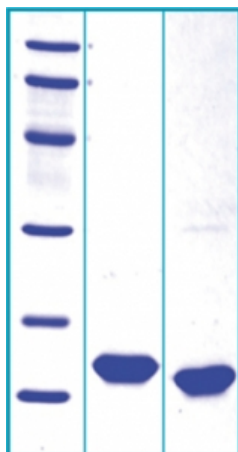
### Source

E. coli

### Purity

Purity as determined by densitometric image analysis: >95%

### SDS-PAGE gel



14% SDS-PAGE separation of Canine 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 lyophilized in 0.5 mg/mL in 20mM TRIS, 50mM 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 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; it does not show any change 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**

Western blotting

### **Note**

This product is intended for research use only.

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