Cystatin C (E.coli) Human, Rabbit Polyclonal Antibody

Product Data Sheet
Source of Antigen:  E. coli
Host: Rabbit
Cat. No.: RD181009100 (0.1 mg)

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

Research topic
Renal disease

Preparation
The antibody was raised in rabbits by immunization with the recombinant Human Cystatin C.

Amino Acid Sequence
The immunization antigen (14.5 kDa) is a protein containing 129 AA of recombinant Human Cystatin C. N-terminal His-tag, 9 extra AA (highlighted).

MKHHHHHHA SP–GKFPRLVG GPMDASVEEE GVRRALDFAV GEYNKASNDM YHSRALQVVR ARKQIVAGVN YFLDVELGRT TCTKTQPWNL HPFHDQPHL KRKAFCSFQY WFWQGTM LSKSTCQDA

Species Reactivity
Human
Not yet tested in other species.

Purification Method
Imunoaffinity chromatography on a column with immobilized recombinant Human Cystatin C.

Antibody Content
0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation
The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. AZIDE FREE.

Reconstitution
Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Storage/Stability
The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration
See vial label.

Lot Number
See vial label.

Quality Control Test
Indirect ELISA - to determine titer of the antibody
SDS PAGE - to determine purity of the antibody
Applications
ELISA, Western blotting

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 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.

References

* Ono S. et al. Increased cystatin C immunoreactivity in the skin in amyotrophic lateral sclerosis.