Recombinant Rat Cst3 Protein (Sumo Tag)



RPES8232

Product Information

Product SKU: RPES8232 Expression Host: E.coli Size: 20μg

Tag: N-Sumo Reactivity: Rat Accession: P14841

Additional Information

Calculated MW: 26 kDa Observed MW: 32 kDa

Sequence: Gly21-Ala140

Protein Information

Background:

Cystatin C, also known as Cystatin-3 (CST3) is a secreted type 2 cysteine protease inhibitor synthesized in all nucleated cells, has been proposed as a replacement for serum creatinine for the assessment of renal function, particularly to detect small reductions in glomerular filtration rate. The mature, active form of human cystatin C is a single non-glycosylated polypeptide chain consisting of 120 amino acid residues, with a molecular mass of 13,343-13,359 Da, and containing four characteristic disulfide-paired cysteine residues. Cystatin C is a low-molecular-weight protein that has been proposed as a marker of renal function that could replace creatinine. Indeed, the concentration of Cystatin C is mainly determined by glomerular filtration and is particularly of interest in clinical settings where the relationship between creatinine production and muscle mass impairs the clinical performance of creatinine. Since the last decade, numerous studies have evaluated its potential use in measuring renal function in various populations. More recently, other potential developments for its clinical use have emerged. In almost all the clinical studies, Cystatin C demonstrated a better diagnostic accuracy than serum creatinine in discriminating normal from impaired kidney function, but controversial results have been obtained by comparing this protein with other indices of kidney disease, especially serum creatinine-based equations, such as early atherosclerosis, Alzheimer's dementia, vascular aneurysms, hyperhomocysteinaemia and other neurodegenerative diseases. Cystatin C could be a useful clinical tool to identify HIV-infected persons. In addition, its expression is up-regulated in malignance of certain tumor progression.

Synonyms: AD 8, AD8, Amyloid angiopathy and cerebral hemorrhage, ARMD11, bA218C14.4

(cystatin C), bA218C14.4, Cst 3, Cst3, CST3 protein, Cystatin 3, Cystatin-3, Cystatin-C, Cystatin3, CystatinC, CYTC, Epididymis secretory protein Li 2, Gamma trace, Gammatrace, HCCAA, HEL S 2, MGC117328, Neuroendocrine basic polypeptide, Post gamma

globulin, Post-gamma-globulin

Endotoxin: < 10 EU/mg of the protein as determined by the LAL method

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.

Purity: > 90% as determined by reducing SDS-PAGE.

Bio-Activity: Not validated for activity

Storage: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.