

Recombinant Human Cystatin C/CST3 Protein (His Tag)

Catalog Number: PKSH031605

Note: Centrifuge before opening to ensure complete recovery of vial contents.

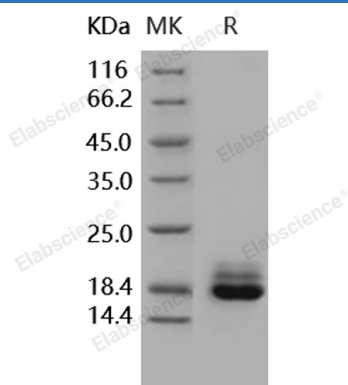
Description

Species	Human
Source	HEK293 Cells-derived Human Cystatin C/CST3 protein Ser 27-Ala 146, with an C-terminal His
Calculated MW	14.8 kDa
Observed MW	17 kDa
Accession	NP_000090.1
Bio-activity	Measured by its ability to inhibit papain cleavage of a fluorogenic peptide substrate Z-FR-AMC, R&D Systems, Catalog # ES009. The IC50 value is < 12 nM.

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 25mM HEPES, 0.15mM NaCl, pH 7.7 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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. Cystatin C is a low-molecular-weight protein which 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.