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37-1019: Human Cystatin B / CSTB Recombinant Protein (His Tag)(Discontinued)

Reactivity : Human
Alternative Name : CST6 Protein, EPM1 Protein, EPM1A Protein, PME Protein, STFB Protein, ULD Protein,

Description

Source : E. coli
Cystatin-B, also known as CPI-B, Liver thiol proteinase inhibitor, Stefin-B, CSTB and CST6, is a cytoplasm and nucleus protein which belongs to thecystatin family. Cystatin-B / CSTB is an intracellular thiol proteinase inhibitor. Tightly binding reversible inhibitor of cathepsins L, H and B. Cystatin-B / CSTB is able to form a dimer stabilized by noncovalent forces, inhibiting papain and cathepsins l, h and b. Cystatin-B / CSTB is also thought to play a role in protecting against the proteases leaking from lysosomes. Defects in Cystatin-B / CSTB are the cause of progressive myoclonic epilepsy type 1 (EPM1) which is an autosomal recessive disorder characterized by severe, stimulus-sensitive myoclonus and tonic-clonic seizures. The cystatins are a family of cysteine protease inhibitors with homology to chicken cystatin. Cystatins are physiological inhibitors of cysteine proteinases which are widely distributed in human tissues and fluids. Cystatins typically comprise about 115 amino acids, are largely acidic, contain four conserved cysteine residues known to form two disulfide bonds. Cystatins may be glycosylated and / or phosphorylated, with similarity to fetuins, kininogens, stefins, histidine-rich glycoproteins and cystatin-related proteins. Some of the members are active cysteine protease inhibitors, while others have lost or perhaps never acquired inhibitory activity. Cystatins mainly inhibit peptidases belonging to peptidase families C1 (papain family) and C13 (legumain family).

Product Info

Amount :	Human Cystatin B / CSTB Recombinant Protein (His Tag)(Discontinued) / 100 µg
Purification :	> 95 % as determined by SDS-PAGE
Content :	Formulation Lyophilized from sterile 50mM Tris, 50mM NaCl, pH 8.0 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Storage condition :	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Amino Acid :	Met2-Phe98

Application Note

Measured by its ability to inhibit papain cleavage of a fluorogenic peptide substrate Z-FR-AMC . The IC50 value is < 15 nM.

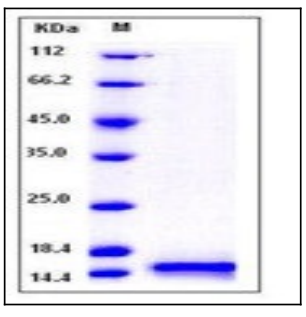

Fig 1: Human Cystatin B / CSTB Recombinant Protein (His Tag)

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