



Product Data Sheet

Cystatin S/CST4 Protein, Human (HEK293, His)

Cat. No.: HY-P7866

Synonyms: rHuCystatin-S/CST4, His; Cystatin-S; Cystatin-4; Cystatin-SA-III; Salivary Acidic Protein 1; CST4

Species: **HEK293** Source:

P01036 (S21-A141) Accession:

Gene ID: 1472

Molecular Weight: Approximately 16.0 kDa

PROPERTIES

AA Sequence

SSSKEENRII PGGIYDADLN DEWVQRALHF AISEYNKATE DEYYRRPLQV LRAREQTFGG VNYFFDVEVG RTICTKSQPN LDTCAFHEQP ELQKKQLCSF EIYEVPWEDR MSLVNSRCQE

Lyophilized powder. **Appearance**

Formulation Lyophilized from a 0.2 µm filtered solution of 20 mM MES, 150 mM NaCl, pH 5.5.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconsititution It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is

recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is

recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

Cystatin S (CST4) protein exhibits robust inhibitory activity against papain and ficin enzymes, demonstrating a potent inhibitory effect. Additionally, it partially inhibits stem bromelain and bovine cathepsin C, though it does not impede the activities of porcine cathepsin B or clostripain. Notably, the inhibition of papain follows a non-competitive mode. This diverse inhibitory profile highlights the specificity of CST4 in regulating the activities of various proteases, suggesting its role in modulating proteolytic processes. The distinctive inhibitory properties of CST4 against specific enzymes contribute to its functional significance in cellular and physiological contexts, underscoring its potential impact on protease-mediated pathways and cellular homeostasis.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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