

## Cystatin A/CSTA Protein, Human (His)

<b>Cat. No.:</b>	HY-P7868
<b>Synonyms:</b>	rHuCystatin-A, His; Cystatin-A; Cystatin-AS; Stefin-A; CSTA; STF1; STFA
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P01040 (I2-F98)
<b>Gene ID:</b>	1475
<b>Molecular Weight:</b>	Approximately 14.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>I P G G L S E A K P      A T P E I Q E I V D      K V K P Q L E E K T      N E T Y G K L E A V</p> <p>Q Y K T Q V V A G T      N Y Y I K V R A G D      N K Y M H L K V F K      S L P G Q N E D L V</p> <p>L T G Y Q V D K N K      D D E L T G F</p>
<b>Biological Activity</b>	Measured by its ability to inhibit papain cleavage of a fluorogenic peptide substrate Z-FR-AMC. The IC <sub>50</sub> value is 0.408 nM, as measured under the described conditions.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCl, 100 mM NaCl, pH 8.0.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years from date of receipt. 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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>Cystatin A (CSTA) protein serves as an intracellular thiol proteinase inhibitor and plays a crucial role in desmosome-mediated cell-cell adhesion, particularly in the lower levels of the epidermis. Its function as a proteinase inhibitor underscores its significance in regulating proteolytic activities within cells. Moreover, the specific involvement of CSTA in desmosome-mediated adhesion highlights its essential contribution to the structural integrity and cohesion of epidermal cells. The intricate interplay of CSTA within cellular processes emphasizes its importance in maintaining the functional and structural aspects of the epidermis, particularly in the context of cell adhesion mechanisms.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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