

Recombinant Human Mammary Serine Protease Inhibitor

#R00495

Size: 5 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Mammary serine protease inhibitor (Maspin), also known as serpin B5 is a non-inhibitory serpin that is encoded by the SERPINB5 gene in humans. The protein is expressed predominantly in normal mammary epithelial cells but at significantly reduced levels or absent in most breast carcinomas. As it does not undergo the S (stressed) to R (relaxed) conformational transition characteristic of active serpins, it exhibits no serine protease inhibitory activity. The maspin functions as tumor suppressor, blocking the growth, invasion, and metastatic properties of mammary tumors. This anti-tumor activity is achieved, in part, by the ability of maspin to inhibit angiogenesis and to preferentially promote apoptosis of tumor cells.

AA Sequence

MDALQLANSFAVDLFLKQLCEKEPLGNVLFSPICLST
SLSLAQVGAKGDTANEIGQVLHFENVKDIPFGFQTVT

SDVNKLSSFYSLKLIKRLYVDKSLNLSTEFISSTKRPYA
KELETVDKFDKLEETKGQINNSIKDLTDGHFENILADN
SVNDQTKILVVNAAYFVGKWMKKFPESETKECPFRL
NKTDTPKVQMMNMEATFCMGNIDSINCKIIELPFQNK
HLSMFILLPKDVEDESTGLEKIEKQLNSELSQWTNP
STMANAKVKLSIPKFKVEKMIDPKACLENLGLKHIFSE
DTSDFSGMSETKGVALSNVIHKVCLEITEDGGDSIEV
PGARILQHKDELNADHPFIYIIRHNKTRNIFFGKFCSP

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	SerpinB5, Protease Inhibitor 5
Accession	P36952
GeneID	5268
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 42.1 kDa, a single non-glycosylated polypeptide chain containing 375 amino acid residues.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity	Data is not available.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/µg of rHuMaspin as determined by LAL method.