

Recombinant Human Mammary Serine Protease Inhibitor

Information

Gene ID	5268
Accession #	P36952
Alternate Names	SerpinB5, Protease Inhibitor 5
Source	Escherichia coli.
M.Wt	Approximately 42.1 kDa, a single non-glycosylated polypeptide chain containing 375 amino acid residues.
AA Sequence	MDALQLANSA FAVDLFKQLC EKEPLGNVLF SPICLSTSLA LAQVGAKGDT ANEIGQVLHF ENVKDIPFGF QTVTSDVNKL SSFYSLKLIK RLYVDKSLNL STEFISSTKR PYAKELETVD FKDKLEETKG QINNSIKDLT DGHFENILAD NSVNDQTKIL VVNAAYFVGK WMKKFPESET KECFRLNKT DTKPVQMMNM EATFCMGNID SINCKIIELP FQNKHLSMFI LLPKDVEDES TGLEKIEKQL NSESLSQWTN PSTMANAKVK LSIPKFKEK MIDPKACLEN LGLKHIFSED TSDFGMSET KGVALSNVIH KVCLEITEDG GDSIEVPGAR ILQHKDELNA DHPFIYIIRH NKTRNIIFFG KFCSP
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
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.
Biological Activity	Data is not available.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5µg	100µg	500µg
Recombinant Human Mammary Serine Protease Inhibitor	5µg	100µg	500µg

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- 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

Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rHuMaspin as determined by LAL method.

Description

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.

Reference

1. Goulet B, Kennette W, Ablack A, et al. 2011. Lab Invest, 91: 1181-7
2. Schwarz S, Ettl T, Kleinsasser N, et al. 2008. Oral Oncol, 44: 563-70
3. Abd El-Wahed MM. 2005. J Egypt Natl Canc Inst, 17: 173-83
4. Katakura H, Takenaka K, Nakagawa M, et al. 2006. Lung Cancer, 51: 323-8.

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