

## Recombinant Human SERPINB5 protein

**Cat. No.** SERPINB5-645H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human SERPINB5 protein was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	375
<b>Description</b>	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.
<b>Form</b>	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
<b>Molecular Mass</b>	Approximately 42.1 kDa, a single non-glycosylated polypeptide chain containing 375 amino acid residues.
<b>AA Sequence</b>	MDALQLANSFAVDLFLKQLCEKEPLGNVLFSPICLSTSLSLAQVGAKGDTANEIGQVL HFENVKDIPFGFQTVTSDVNKLSSFYSLKLIKRLYVDKSLNLSTEFISSTKRPYAKELE

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TVDFKDKLEETKGGQINNSIKDLTDGHFENILADNSVNDQTKILVVNAAYFVGKWMKKF  
 PESETKECPFRLNKTDTKPVQMMNMEATFCMGNIDSINCKIIELPFQNKHLSMFILLP  
 KDVEDESTGLEKIEKQLNSESLSQWTNPSTMANAKVKLSIPKFKVEKMIDPKACLENL  
 GLKHIFSEDTSDFSGMSETKGVALSNIHVKVCLEITEDGGDSIEVPGARILQHKDELN  
 ADHPFIYIIRHNKTRNIIFFGKFCSP

**Endotoxin** Less than 1 EU/μg of rHuMaspin as determined by LAL method.

**Purity** >95% by SDS-PAGE and HPLC analysis.

**Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

**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 centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

**Gene Name** SERPINB5

**Official Symbol** SERPINB5

**Synonyms** SERPINB5; serpin peptidase inhibitor, clade B (ovalbumin), member 5; PI5, serine (or cysteine) proteinase inhibitor, clade B (ovalbumin), member 5; serpin B5; maspin; protease inhibitor 5 (maspin); PI-5; peptidase inhibitor 5; serine (or cysteine) proteinase inhibitor, clade B (ovalbumin), member 5; PI5;

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Gene ID	5268
mRNA Refseq	NM_002639
Protein Refseq	NP_002630
MIM	154790
UniProt ID	P36952

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