
Product Data Sheet

Product Name: SERPINA1 Human, Active
 Cat. No.: GP24530
 Batch No.: 1

Product Data

Purity	>98%	Source	Rice Grain (<i>Oryza Sativa</i>).
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Alpha-1-antitrypsin; Alpha-1 protease inhibitor; Alpha-1-antiproteinase; SERPINA1; A1AT; PI; A1A; AAT; PI1; MGC9222; PRO2275; MGC23330.		
Solubility	It is recommended to reconstitute the lyophilized SERPINA1 in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	SERPINA1 was lyophilized from a concentrated solution containing recombinant Albumin.		

Introduction

SERPINA1 is secreted and is a serine protease inhibitor which its targets include elastase, plasmin, collagenase, leucocytic proteases, trypsin, chymotrypsin, and plasminogen activator. Defects in SERPINA1 gene can cause emphysema or liver disease. SERPINA1 is an endogenous inhibitor of serine proteases and inhibits the catalytic domain of human recombinant matriptase in vitro. Rise in SERPINA1 occurs as an acute phase response to tissue necrosis and inflammation. mutations in SERPINA1 and SLC11A1 genes change the balance between elastase produced by leukocytes during phagocytosis.

Biological Activity

3~5 mg SERPINA1 will inhibit 1 mg PPE with an activity of 10.8 units per mg protein

Stability

Lyophilized SERPINA1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution SERPINA1 should be stored at 4°C between 2-7 days and for future use below -18°C .For long term storage it is

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recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

SERPINA1 Human Recombinant produced in rice is a single, non-glycosylated polypeptide chain containing 384 amino acids and having a molecular mass of 43.1 kDa. The SERPINA1 protein is purified by proprietary chromatographic techniques.

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