Creative Enzymes®

Native Human α-1-Antitrypsin

Cat. No. NATE-0010

Lot. No. (See product label)

Introduction

Description	Alpha-1 Antitrypsin or α1-antitrypsin (A1AT) is a protease inhibitor belonging to the serpin superfamily. It is generally known as serum trypsin inhibitor. Alpha 1-antitrypsin is also referred to as alpha-1 proteinase inhibitor (A1PI) because it inhibits a wide variety of proteases. It protects tissues from enzymes of inflammatory cells, especially neutrophil elastase, and has a reference range in blood of 1.5-3.5 gram/liter (in US the reference range is generally expressed as mg/dL or micromoles), but the concentration can rise manyfold upon acute inflammation. In its absence, neutrophil elastase is free to break down elastin, which contributes to the elasticity of the lungs, resulting in respiratory complications such as emphysema, or COPD (chronic obstructive pulmonary disease) in adults and cirrhosis in adults or children.
Synonyms	Alpha-1-Antitrypsin; A1AT; α1-antitrypsin; SERPINA1; A1A; A1AT; AAT; PI; PI1; PRO2275; alpha1AT

Product Information

Species	Human
Source	Human Plasma
Form	Lyophilized
CAS No.	9041-92-3
Molecular Weight	54kDa
Purity	> 95% (SDS-PAGE)
Pathway	Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; FOXA1 transcription factor network, organism-specific biosystem; Hemostasis, organism-specific biosystem; Platelet activation, signaling and aggregation, organism-specific biosystem; Platelet degranulation, organism-specific biosystem
Function	protease binding; protein binding; serine-type endopeptidase inhibitor activity; serine-type endopeptidase inhibitor activity

Storage and Shipping Information

Storage	2-8°C