

## Native Human $\alpha$ -1-Antitrypsin

Cat. No. NATE-0010

Lot. No. (See product label)

### Introduction

**Description** Alpha-1 Antitrypsin or  $\alpha$ 1-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;  $\alpha$ 1-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