

Recombinant human Serpin A1/alpha 1-Antitrypsin protein

Catalog Number: ATR0901

PRODUCT INFORMATION

Expression system

E.coli

Domain

25-418aa

UniProt No.

P01009

NCBI Accession No.

NP_000286.2

Alternative Names

PI, A1A, AAT, PI1, A1AT, MGC9222, PRO2275, MGC23330, SERP1NA1, Alpha-1 antiproteinase, Serine proteinase inhibitor, Antitrypsin, Alpha 1 antiproteinase, Alpha 1 antitrypsin, alpha 1 AT, Alpha 1 protease inhibitor, alpha1 PI, MGC23330, alpha1 proteinase inhibitor, Clade A member 1, cysteine proteinase inhibitor, Serpin A1, Protease inhibitor 1, Serpin peptidase inhibitor clade A member 1, SerpinA1, Alpha-1 Antitrypsin, A1AT, serum trypsin inhibitor

PRODUCT SPECIFICATION

Molecular Weight

44.4 kDa (395aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 10% glycerol, 1mM DTT, 2mM EDTA

Purity

> 90% by SDS-PAGE

Tag

Non-Tagged

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Alpha 1 proteinase inhibitor (Antitrypsin) has a characteristic secondary structure of beta sheets and alpha helices. That is a serum glycoprotein synthesized in the liver. It acts as an elastase inhibitor, primarily inhibiting

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neutrophil elastase, chymotrypsin, collagenase, leucocytic proteases, plasmin, and thrombin, which may be released during inflammatory reactions in the lung. Also Increase in Antitrypsin occurs as an acute phase response to tissue necrosis and inflammation. Serum level of Antitrypsin is elevated in rheumatoid arthritis, bacterial infections, vasculitis, and carcinomatosis. Recombinant Antitrypsin protein was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

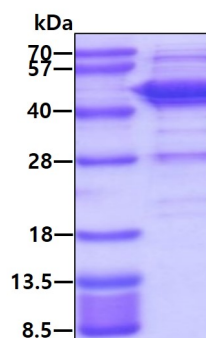
MEDPQGDAAG KTDTSHHDDQD HPTFNKITPN LAEFAFSLYR QLAHQSNSTN IFFSPVSIAT AFAMLSLGTK ADTHDEILEG
LNFNLTEIPE AQIHEGFQEL LRTLNPDSQ LQLTTGNGLF LSEGLKLVDK FLEDVKKLYH SEFTVNFGD TEEAKKQIND
YVEKGTQGKI VDLVKELDRD TVFALVNYIF FKGKWERPFE VKDTEEDFH VDQVTTVKVP MMKRLGMFNI QHCKKLSSWV
LLMKYLG NAT AIFFLPDEGK LQHLENELTH DIITKFLNE DRRSASLHLP KLSITGTYDL KSVLGQLGIT KVFSNGADLS
GVTEEAPLKL SKAVHKAVLT IDEKGTEAAG AMFLEAIPMS IPPEVKFNKP FVFLMIDQNT KSPLFMGKVV NPTQK

General References

Kolarich D., et al. (2006).Proteomics. 6(11):3369-80
Wu Y., et al. (1991).Bioessays. 13(4):163-9

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.