# abcam

## Product datasheet

# Recombinant Human alpha 1 Antitrypsin protein ab79181

### 1 图像

描述

产品名称 重组人alpha 1 Antitrypsin蛋白

纯**度** > 90 % SDS-PAGE.

ab79181 is purified using conventional chromatography techniques.

表达系统 Escherichia coli

**蛋白长度** Full length protein

无动物成分 No

性质 Recombinant

种属 Human

序列 MEDPQGDAAQ KTDTSHHDQD HPTFNKITPN

LAEFAFSLYR QLAHQSNSTN IFFSPVSIAT
AFAMLSLGTK ADTHDEILEG LNFNLTEIPE
AQIHEGFQEL LRTLNQPDSQ LQLTTGNGLF
LSEGLKLVDK FLEDVKKLYH SEAFTVNFGD
TEEAKKQIND YVEKGTQGKI VDLVKELDRD
TVFALVNYIF FKGKWERPFE VKDTEEEDFH
VDQVTTVKVP MMKRLGMFNI QHCKKLSSWV
LLMKYLGNAT AIFFLPDEGK LQHLENELTH
DIITKFLENE DRRSASLHLP KLSITGTYDL
KSVLGQLGIT KVFSNGADLS GVTEEAPLKL

SKAVHKAVLT IDEKGTEAAG AMFLEAIPMS

IPPEVKFNKP FVFLMIDQNT KSPLFMGKVV NPTQK

#### 技术指标

Our Abpromise guarantee covers the use of ab79181 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用 SDS-PAGE

形式 Liquid

制备和贮存

稳定性和存储 Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

pH: 7.50

Constituents: 0.0154% DTT, 0.242% Tris, 0.0584% EDTA, 10% Glycerol (glycerin, glycerine)

#### 常规信息

#### 功能

Inhibitor of serine proteases. Its primary target is elastase, but it also has a moderate affinity for plasmin and thrombin. Irreversibly inhibits trypsin, chymotrypsin and plasminogen activator. The aberrant form inhibits insulin-induced NO synthesis in platelets, decreases coagulation time and has proteolytic activity against insulin and plasmin.

Short peptide from AAT: reversible chymotrypsin inhibitor. It also inhibits elastase, but not trypsin. Its major physiological function is the protection of the lower respiratory tract against proteolytic destruction by human leukocyte elastase (HLE).

组织特异性

Ubiquitous. Expressed in leukocytes and plasma.

疾病相关 序列相似性 Alpha-1-antitrypsin deficiency Belongs to the serpin family.

结构域

The reactive center loop (RCL) extends out from the body of the protein and directs binding to the target protease. The protease cleaves the serpin at the reactive site within the RCL, establishing a covalent linkage between the carboxyl group of the serpin reactive site and the serine hydroxyl of the protease. The resulting inactive serpin-protease complex is highly stable.

翻译后修饰

N-glycosylated. Differential glycosylation produces a number of isoforms. N-linked glycan at Asn-107 is alternatively di-antennary, tri-antennary or tetra-antennary. The glycan at Asn-70 is diantennary with trace amounts of tri-antennary. Glycan at Asn-271 is exclusively di-antennary. Structure of glycans at Asn-70 and Asn-271 is Hex5HexNAc4. The structure of the antennae is Neu5Ac(alpha1-6)Gal(beta1-4)GlcNAc attached to the core structure Man(alpha1-6)[Man(alpha1-3)]Man(beta1-4)GlcNAc(beta1-4)GlcNAc. Some antennae are fucosylated, which forms a Lewis-

X determinant.

Proteolytic processing may yield the truncated form that ranges from Asp-30 to Lys-418.

细胞定位

Secreted. Endoplasmic reticulum. The S and Z allele are not secreted effectively and accumulate intracellularly in the endoplasmic reticulum and Secreted, extracellular space, extracellular matrix.

#### 图片



15% SDS-PAGE showing ab79181 at approximately 44kDa (3µg).

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