

Product datasheet

Anti-alpha 1 Antitrypsin antibody, prediluted ab74664

1 Image

Overview

Product name	Anti-alpha 1 Antitrypsin antibody, prediluted
Description	Rabbit polyclonal to alpha 1 Antitrypsin, prediluted
Host species	Rabbit
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Horse, Human, Mink, Monkey, Baboon Does not react with: Mouse, Sheep, Goat, Chicken, Guinea pig, Cow, Cat, Dog, Pig, Kangaroo
Immunogen	Full length purified human serum alpha 1 Antitrypsin protein
Positive control	Human tonsil.

Properties

Form	Prediluted
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	pH: 7.60 Preservative: 0.097% Sodium azide Constituent: 7.9% Tris HCl Stabilizing agent.
Purity	IgG fraction
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab74664** in the following tested applications.

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

Application	Abreviews	Notes
IHC-P		

Application notes

IHC-P: Ready to Use.

No special pretreatment is required for staining of formalin-fixed, paraffin-embedded tissues.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

Function

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).

Tissue specificity

Ubiquitous. Expressed in leukocytes and plasma.

Involvement in disease

Alpha-1-antitrypsin deficiency

Sequence similarities

Belongs to the serpin family.

Domain

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.

Post-translational modifications

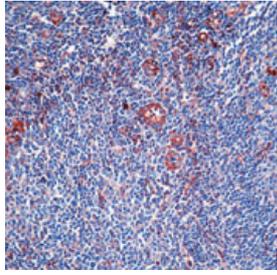
N-glycosylated. Differential glycosylation produces a number of isoforms. N-linked glycan at Asn-107 is alternatively di-antennary, tri-antennary or tetra-antennary. The glycan at Asn-70 is di-antennary with trace amounts of tri-antennary. Glycan at Asn-271 is exclusively di-antennary. Structure of glycans 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.

Cellular localization

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.

Images



Formalin-fixed, paraffin-embedded human tonsil stained with ab74664, using peroxidase-conjugate and AEC chromogen. Note cytoplasmic staining of endothelial cells.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha 1 Antitrypsin antibody, prediluted (ab74664)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors