

Product datasheet

Anti-alpha 1 Antitrypsin antibody, prediluted ab922

2 Images

Overview

<b>Product name</b>	Anti-alpha 1 Antitrypsin antibody, prediluted
<b>Description</b>	Rabbit polyclonal to alpha 1 Antitrypsin, prediluted
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IHC-P, IHC-Fr
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Dog, Human, Monkey
<b>Immunogen</b>	Alpha-1-antitrypsin isolated from human serum.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide
	Inert stabilizer
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Polyclonal
<b>Myeloma</b>	unknown
<b>Isotype</b>	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab922** in the following tested applications.

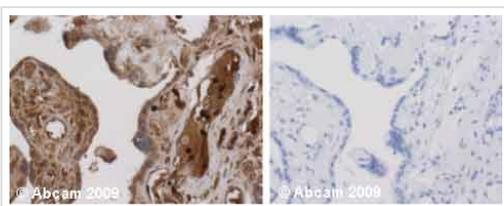
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P		1/1.
IHC-Fr		1/1.

## Target

<b>Function</b>	<p>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.</p> <p>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).</p>
<b>Tissue specificity</b>	Ubiquitous. Expressed in leukocytes and plasma.
<b>Involvement in disease</b>	Alpha-1-antitrypsin deficiency
<b>Sequence similarities</b>	Belongs to the serpin family.
<b>Domain</b>	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.
<b>Post-translational modifications</b>	<p>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.</p> <p>Proteolytic processing may yield the truncated form that ranges from Asp-30 to Lys-418.</p>
<b>Cellular localization</b>	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.

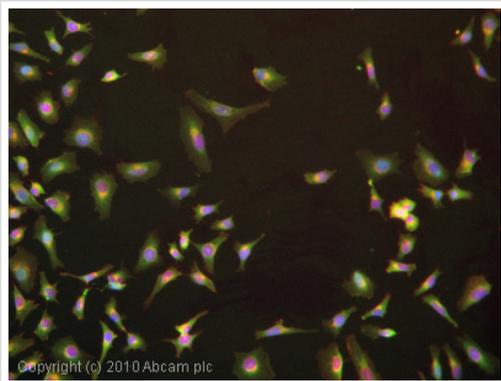
## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-alpha 1 Antitrypsin antibody, prediluted (ab922)

Human normal placenta. Staining is observed as extracellular and cytoplasmic. Left panel: with primary antibody at 1 ug/ml. Right panel: isotype control. Sections were stained using an automated system DAKO Autostainer Plus , at room temperature: sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffers citrate pH6.1 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for rabbit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and

amplification may be required.



Immunocytochemistry/ Immunofluorescence - Anti-alpha 1 Antitrypsin antibody, prediluted (ab922)

ICC/IF image of ab922 stained HeLa cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab922, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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

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