

## Product datasheet

# Anti-alpha 1 Antitrypsin antibody [G11] ab9400

★★★★★ 1 Abreviews 14 References 2 Images

### Overview

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|                            |  |
|----------------------------|--|
| <b>Product name</b>        | Anti-alpha 1 Antitrypsin antibody [G11]  |
| <b>Description</b>         | Mouse monoclonal [G11] to alpha 1 Antitrypsin  |
| <b>Host species</b>        | Mouse  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Human  |
| <b>Immunogen</b>           | Full length protein corresponding to Human alpha 1 Antitrypsin.<br>Database link: <a href="#">P01009</a>   |
| <b>General notes</b>       | <p>This product was changed from ascites to tissue culture supernatant on 28/11/2017. Lot numbers higher than GR3176514-1 will be from tissue culture supernatant. Please note that the dilutions may need to be adjusted accordingly.</p> <p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p> |

### Properties

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|                             |  |
|-----------------------------|--|
| <b>Form</b>                 | Liquid   |
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| <b>Storage buffer</b>       | pH: 7.2<br>Preservative: 0.1% Sodium azide<br>Constituent: PBS   |
| <b>Purity</b>               | Protein A purified   |
| <b>Clonality</b>            | Monoclonal   |
| <b>Clone number</b>         | G11  |
| <b>Myeloma</b>              | NS0/1  |

|                         |         |
|-------------------------|---------|
| <b>Isotype</b>          | IgG1    |
| <b>Light chain type</b> | unknown |

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab9400 in the following tested applications.

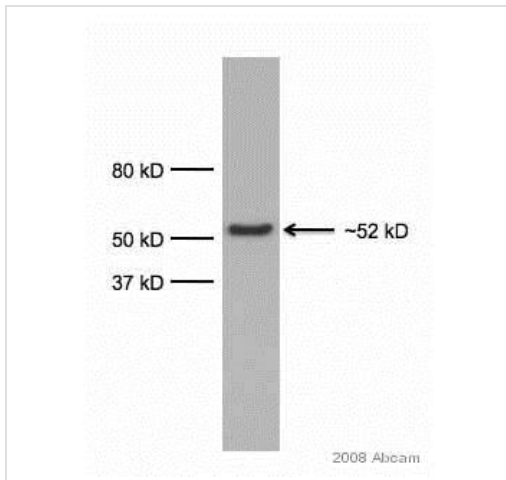
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes            |
|-------------|-----------|------------------|
| WB          | ★★★★★ (1) | 1/1000 - 1/5000. |

## 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



Western blot - Anti-alpha 1 Antitrypsin antibody  
[G11] (ab9400)

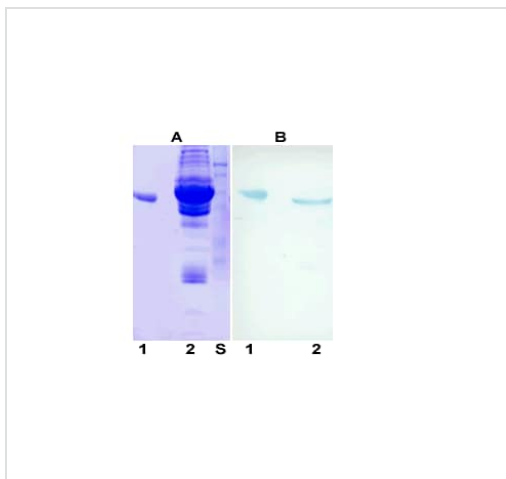
This image is courtesy of an Abreview submitted by Mr John Andersen

Anti-alpha 1 Antitrypsin antibody [G11] (ab9400) at 1/1000 dilution  
+ Albumin depleted human patient sera, tissue lysate at 50 µg/ml

**Secondary**

HRP conjugated goat anti-mouse IgG (H&L). at 1/5000 dilution

**Observed band size:** 52 kDa



Western blot - Anti-alpha 1 Antitrypsin antibody  
[G11] (ab9400)

Western blot using ab9400 at a concentration of 0.5 µg/ml.

Lane 1 - purified alpha 1 antitrypsin

lane 2 - human plasma, 2 µl

lane S - standard proteins

A - SDS-PAGE with Coomassie staining

B - immunoblot with ab9400.

Western blot using ab9400 at a concentration of 0.5 µg/ml.

Lane 1 - purified alpha 1 antitrypsin

lane 2 - human plasma, 2 µl

lane S - standard proteins

A - SDS-PAGE with Coomassie staining

B - immunoblot with ab9400.

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