

**Datasheet for 200-101-147S****Alpha-1-Anti-Trypsin Antibody****Overview**

|                      |                                                                         |
|----------------------|-------------------------------------------------------------------------|
| <b>Description:</b>  | Anti-Alpha-1-Anti-Trypsin (Human Plasma) (GOAT) Antibody - 200-101-147S |
| <b>Item No.:</b>     | 200-101-147S                                                            |
| <b>Size:</b>         | 25 µL                                                                   |
| <b>Applications:</b> | ELISA, WB                                                               |
| <b>Reactivity:</b>   | Human                                                                   |
| <b>Host Species:</b> | Goat                                                                    |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Alpha-1-Antitrypsin (AAT) is an inhibitor of serine proteases. Its primary target is elastase, but it also has a moderate affinity for plasmin and thrombin. It 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 is 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). |
| <b>Synonyms:</b>     | goat anti-Alpha-1-Trypsin Antibody, A1AT antibody, AAT antibody, Alpha 1 antiproteinase antibody, Alpha 1 antitrypsin antibody, Alpha 1 protease inhibitor antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Host Species:</b> | Goat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**Target Details**

|                        |                                |
|------------------------|--------------------------------|
| <b>Gene Name:</b>      | SERPINA1                       |
| <b>Reactivity:</b>     | Human                          |
| <b>Immunogen Type:</b> | Native Protein                 |
| <b>Immunogen:</b>      | a1-Anti-Trypsin [Human Plasma] |

**Purity/Specificity:** Anti-ALPHA-1-ANTI-TRYPSIN is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum as well as purified and partially purified  $\alpha$ 1-Anti-Trypsin [Human Plasma]. Cross reactivity against  $\alpha$ 1-Anti-Trypsin from other sources is unknown.

**Relevant Links:**

- [UniProtKB - P01009](#)
- [NCBI - NP\\_000286.3](#)
- [GeneID - 5265](#)

## Application Details

**Tested Applications:** ELISA, WB

**Application Note:** Anti-Alpha-1-Anti-trypsin Antibody has been tested by ELISA and western blot. This product has been assayed against 1.0 ug of Alpha-1-Anti-trypsin [Human Plasma] in a standard ELISA using Peroxidase conjugated Affinity Purified anti-Goat IgG [H&L] (Goat) code #611-1302 and (ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:2,000 to 1:10,000 of the reconstitution concentration is suggested.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

**ELISA:** 1:20,000 - 1:100,000

**WB:** 1:2,000 - 1:10,000

## Formulation

**Physical State:** Liquid (sterile filtered)

**Concentration:** 1.0 mg/ml by UV absorbance at 280 nm

**Buffer:** 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

**Preservative:** 0.01% (w/v) Sodium Azide

**Stabilizer:** None

## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

**Expiration:** Expiration date is one (1) year from date of receipt.

## Images



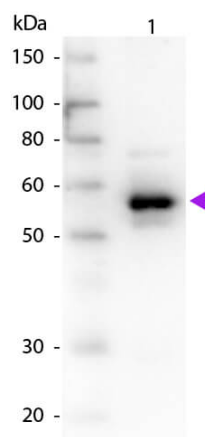
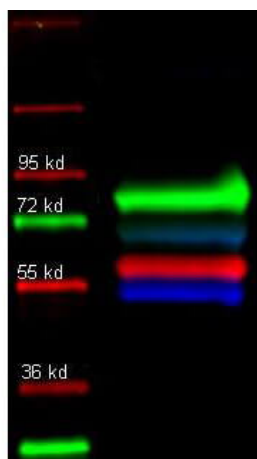
### Western Blot

Western Blot of Anti-Trypsin Polyclonal Antibody-Multiplex Fluorescent Western blot. Lane 1: molecular weight. Lane 2: Alpha-1-Anti-Trypsin (red), Rabbit anti-Transferrin, and Mouse-a-GST were used in a multiplex system to detect target proteins under reducing conditions in albumin depleted human serum with 320 ng of added GST. Load: 35 µg per lane. Primary antibody: Each primary antibody at 1:1000 for overnight at 4°C. Secondary antibody: DyLight549 Donkey anti-Rabbit IgG (green), DyLight 488 Donkey anti-Mouse IgG (blue), and DyLight 649 Donkey anti-Goat IgG (red) secondary antibody at 1:10,000 for 30 min at RT. Block: MB-070 at 30 min RT.



### Western Blot

Western Blot of Goat anti Alpha-1 anti-Trypsin antibody. Lane 1: Alpha-1 anti-Trypsin under reducing conditions. Load: 1 µg per lane. Primary antibody: Alpha-1 anti-Trypsin antibody at 1:3000 for overnight at 4°C. Secondary antibody: DyLight 488 conjugated Donkey anti-goat secondary antibody at 1:10,000 for 45 min at RT. Block: MB-070 overnight at 4°C. Predicted/Observed size: 55kDa for α-1 Anti-Trypsin. Other band(s): none.



#### Western Blot

Western Blot of goat anti-Alpha 1 anti trypsin antibody.  
 Lane 1: molecular weight. Lane 2: Human transferrin (green); Alpha 1 anti trypsin (red); and Human IgG (Blue) in a multiplex fluorescent western blot of human serum. Load: 35 µg per lane. Primary antibody: Each primary antibody was diluted to 1:1000 for overnight at 4°C. Secondary antibody: Rabbit IgG (H&L) Antibody DyLight™ 649 Conjugated (green), Goat IgG (H&L) Antibody DyLight™ 549 Conjugated (red), Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated (blue) secondary antibody at 1:10,000 for ~ 1hr at 4 degrees. Block: Blocking Buffer for Fluorescent Western Blotting - MB-070 overnight at 4°C

#### Western Blot

Western Blot of Goat anti-Alpha-1-Anti-Trypsin antibody.  
 Lane 1: Albumin depleted human serum. Load: ~10 µg per lane. Primary antibody: none. Secondary antibody: Peroxidase goat secondary antibody (p/n 605-4302) at 1:1,000 for 60 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 52 kDa, 52 kDa for Alpha-1-Anti-Trypsin. Other band(s): none

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.