

Datasheet for 100-101-147**Alpha-1-Anti-Trypsin Antibody****Overview**

Description:	Anti-Alpha-1-Anti-Trypsin (Human Plasma) (GOAT) Antibody - 100-101-147
Item No.:	100-101-147
Size:	2 mL
Applications:	WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	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).
Synonyms:	goat anti-A1AT antibody, AAT antibody, Alpha 1 antiprotease antibody, goat anti-Alpha 1 antitrypsin antibody, Alpha 1 protease inhibitor antibody, goat anti- α -1-Anti-Trypsin Antibody
Host Species:	Goat
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	SERPINA1
Reactivity:	Human
Immunogen Type:	Native Protein
Immunogen:	a1-Anti-Trypsin [Human Plasma]

Purity/Specificity: This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-goat serum, purified and partially purified α 1-Anti-Trypsin [Human Plasma]. Cross reactivity against α 1-Anti-Trypsin from other sources is unknown.

Relevant Links:

- [NCBI - NP_000286.3](#)
- [UniProtKB - P01009](#)
- [GeneID - 5265](#)

Application Details

Tested Applications: WB

Application Note: Anti-Alpha-1-AntiTrypsin has been tested by western blot and is suitable to be 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] (Rabbit) code #605-4302 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 1:7,000 to 1:30,000 of the reconstitution concentration is suggested for this product.

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

IHC: 1:500 - 1:2,500

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

Formulation

Physical State: Lyophilized

Concentration: 90 mg/mL by Refractometry

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

Preservative: 0.01% (w/v) Sodium Azide

Stabilizer: None

Reconstitution Volume: 2.0 mL

Reconstitution Buffer: Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

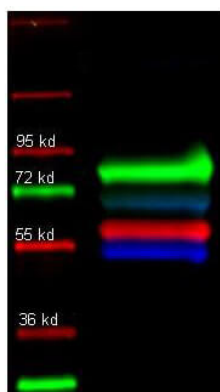


Western Blot

Rockland Goat-anti-Alpha-1-Anti-Trypsin (100-101-147 lot 5842, red), Rabbit anti-Transferrin (109-4134 lot 3033), and Mouse-a-GST (200-301-200 lot 24882) were used in a multiplex system to detect target proteins under reducing (R) conditions (+4% BME) in albumin depleted human serum with 320 ng of added GST. Sample was run by SDS-PAGE, transferred to 0.2 um PVDF using the BioRad Trans-Blot Turbo and blocked in 2.5% Blotto, 2.5% BSA, 0.02% Tween over night at 4°C. Membrane was probed with three primary antibodies at 1:1000 dilution (in MB-070 over night at 4°C). Detection shown was using DyLight549 Donkey anti-Rabbit IgG (611-742-127 lot 21100, shown as green) DyLight 488 Donkey anti-Mouse IgG (610-741-124 lot 21095, shown as blue), and DyLight 649 Donkey anti-Goat IgG (605-743-125 lot 20834, shown as red) at 1:10000 (in MB-070 30 min RT). Blots were washed, rinsed in methanol, dried and Images were collected using the BioRad VersaDoc System.

Western Blot

Rockland primary and Dylight conjugated secondary antibodies were used to detect: Human transferrin (1° 109-4134, green 2° 611-743-127); Alpha 1 anti trypsin (1° 100-101-147, red 2° 605-742-125); and Human IgG (1° 109-3102, Blue 2° 610-741-124 in a multiplex fluorescent western blot of human serum. Each primary antibody was diluted to 1:1000 in Blocking Buffer for Fluorescent Western Blotting - MB-070 and incubated for 2 hrs at RT. Blot was 3X in TTBS, 1X in TBS and probed with secondary antibodies diluted 1:10000 in MB-070 and incubated ~ 1hr at 4 degrees. After wash 2X in TTBS and 2X in TBS, blot was rinsed 2X in MeOH, dried and imaged using the Biorad VersaDoc4000.



**Western Blot**

Rockland Goat anti Alpha-1anti-Trypsin antibody (200-101-147 lot 5854) was used to detect Alpha-1anti-Trypsin under reducing (R) conditions. Reduced sample of purified target protein contained 4% BME and were boiled for 5 minutes. Samples of ~1ug of protein per lane were run by SDS-PAGE. Protein was transferred to nitrocellulose and probed with 1:3000 dilution of primary antibody (ON 4 C in MB-070). Detection shown was using Dylight 488 conjugated Donkey anti goat (605-741-125 lot 21094 1:10K in TBS/MB-070 1 hr RT). Images were collected using the BioRad VersaDoc System.

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.