

Datasheet for 200-103-147S**Alpha-1-Anti-Trypsin Antibody Peroxidase Conjugated****Overview**

Description:	Anti-Alpha-1-Anti-Trypsin (Human Plasma) (GOAT) Antibody Peroxidase Conjugated - 200-103-147S
Item No.:	200-103-147S
Size:	25 µL
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	Anti-Alpha 1-Anti-Trypsin Antibody detects α1-Anti-Trypsin protein. α1-Anti-Trypsin is an inhibitor of serine proteases. Its primary target is elastase, but it also has a moderate affinity for plasmin and thrombin. Anti-Trypsin irreversibly inhibits trypsin, chymotrypsin and plasminogen activator. The aberrant form of Antitrypsin inhibits insulin-induced NO synthesis in platelets, decreases coagulation time and has proteolytic activity against insulin and plasmin. Defects in SERPINA1 are the cause emphysema, liver cirrhosis and liver failure. Environmental factors, particularly cigarette smoking, greatly increase the risk of emphysema at an earlier age. Anti-Alpha-1-Anti-Trypsin Antibody is ideal for investigators involved in Cell Signaling, Signal Transduction and Cancer research.
Synonyms:	goat anti-Alpha-1-Trypsin Antibody HRP Conjugation, Peroxidase Conjugated goat anti-Alpha-1-Trypsin Antibody, A1AT antibody, AAT antibody, Alpha 1 antiprotease antibody, Alpha 1 antitrypsin antibody, Alpha 1 protease inhibitor antibody
Host Species:	Goat
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	SERPINA1
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Reactivity:	Human
Immunogen Type:	Native Protein
Immunogen:	Alpha-1-Anti-Trypsin Antibody was produced by repeated immunizations with native a1-Anti-Trypsin protein from human plasma.
Purity/Specificity:	Anti-alpha-1-Anti-Trypsin Antibody 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-Peroxidase, anti-Goat Serum as well as purified and partially purified a1-Anti-Trypsin [Human Plasma]. Cross reactivity against a1-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 is tested by ELISA and western blot. This product detects a single band of the expected apparent molecular weight (~47 kDa) and for ELISA. Researchers should determine optimal titers for applications that are not stated below.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000 - 1:5,000
IHC:	1:200 - 1:1,000
WB:	1:500 - 1:2,500

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) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

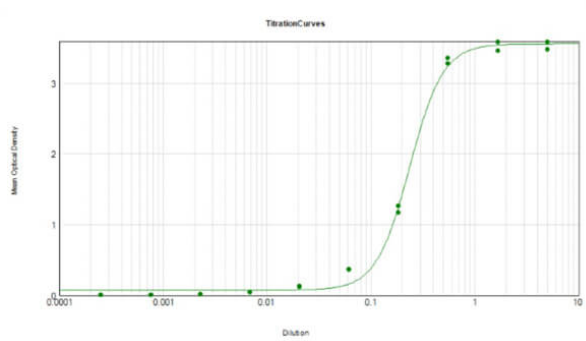
Shipping & Handling

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



ELISA

ELISA Results of Goat Anti-Alpha-1-Anti-Trypsin Peroxidase Conjugated Antibody. Each well was coated in duplicate with 1.0 µg of Alpha-1-Anti-Trypsin. The starting dilution of antibody was 5µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using HRP Conjugated Stabilizer (p/n MB-076), Goat Anti-Alpha-1-Anti-Trypsin Peroxidase Conjugated Antibody (p/n 200-103-147) and TMB substrate (p/n TMBE-1000).



Western Blot

Western Blot of Goat-anti-Alpha-1-Anti-Trypsin Antibody. Lane 1: molecular weight. Lane 2: Goat-anti-Alpha-1-Anti-Trypsin (red), Rabbit anti-Transferrin, and Mouse-a-GST. Load: 35 µg per lane under reducing (R) conditions (+4% BME) in albumin depleted human serum with 320 ng of added GST. Primary antibody: Alpha 1 Anti-Trypsin antibody at 1:400 for overnight at 4°C. Secondary antibody: DyLight 649 Donkey anti-Goat IgG (red) secondary antibody at 1:10,000 for 30 min at RT in MB-070 30 buffer. Block: 2.5% Blotto, 2.5% BSA, 0.02% Tween over night at 4°C. Predicted/Observed size: 46.7kDa, ~55kDa for Alpha-1-AntiTrypsin. Other band(s): DyLight 488 Donkey anti-Mouse IgG (blue) and DyLight549 Donkey anti-Rabbit IgG (green) secondary antibodies.



Western Blot

Western Blot of Goat Anti-ALPHA 1 ANTI TRYPSIN Antibody
 Lane 1: reduced Alpha-1anti-Trypsin. Lane 2: none. Load:
 ~1ug 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 1.5 hr at RT. Block: MB-070 buffer
 overnight at 4°C. Predicted/Observed size: 46.7kDa, ~55kDa
 for Alpha-1-AntiTrypsin. 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.