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Datasheet for 200-103-147-0100

Alpha-1-Anti-Trypsin Antibody Peroxidase Conjugated

Overview

Description:	Anti-Alpha-1-Anti-Trypsin (Human Plasma) (GOAT) Antibody Peroxidase Conjugated - 200-103-147-0100
Item No.:	200-103-147-0100
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	Anti-Alpha 1-Anti-Trypsin Antibody detects a1-Anti-Trypsin protein. a1-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 antiproteinase 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

Reactivity:	Human
Immunogen Type:	Native Protein
Immunogen:	Anti-alpha 1 Anti-Trypsin Antibody was produced by repeated immunizations with native α1 -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

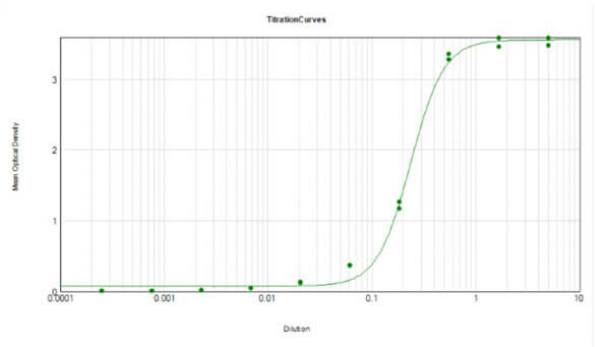
Formulation

Physical State:	Lyophilized
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
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

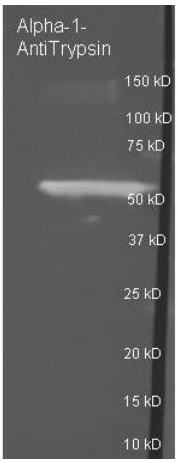
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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



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.

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