

Anti-Alpha-1-Trypsin SERPINA1 Antibody Peroxidase Conjugated

Catalog Number: H00720

About SERPINA1

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.

Overview

Product Name	Anti-Alpha-1-Trypsin SERPINA1 Antibody Peroxidase Conjugated
Reactive Species	Human
Description	Boster Bio Anti-Alpha-1-Trypsin SERPINA1 Antibody Peroxidase Conjugated (Catalog # H00720). Tested in ELISA, WB applications. This antibody reacts with Human.
Conjugate	HRP
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, antibody formulated with stabilizing protein (10 mg/mL) - Immunoglobulin and Protease free, 0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide! This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	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 date is one (1) year from date of opening. (Ship at ambient temperature.)
Host	Goat
Uniprot ID	P01009

Technical Details

Immunogen	Anti-alpha 1 Anti-Trypsin Antibody was produced by repeated immunizations with native alpha1-Anti-Trypsin protein from human plasma.
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Predicted Reactive Species	Bovine, Canine, Equine, Guinea Pig, Pig, Rabbit, Zebrafish
Isotype	IgG
Form	Lyophilized
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Purification	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.
Suggested Dilutions	ELISA: 1:1,000 - 1:5,000 IHC: 1:200 - 1:1,000 WB: 1:500 - 1:2,500 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.

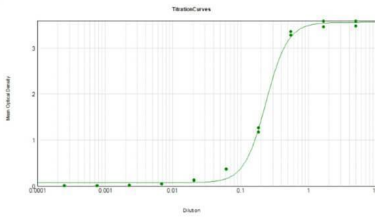
Anti-Alpha-1-Trypsin SERPINA1 Antibody Peroxidase Conjugated (H00720) Images



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 μ g 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 buffer. Block: 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 of Goat Anti-ALPHA 1 ANTI TRYPsin Antibody Lane 1: reduced Alpha-1anti-Trypsin. Lane 2: none. Load: ~1 μ g 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: overnight at 4°C. Predicted/Observed size: 46.7kDa, ~55kDa for Alpha-1-AntiTrypsin. Other band(s): none.



ELISA Results of Goat Anti-Alpha-1-Anti-Trypsin Peroxidase Conjugated Antibody. Each well was coated in duplicate with 1.0 μ g of Alpha-1-Anti-Trypsin. The starting dilution of antibody was 5 μ g/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, Goat Anti-Alpha-1-Anti-Trypsin Peroxidase Conjugated Antibody and TMB substrate.

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