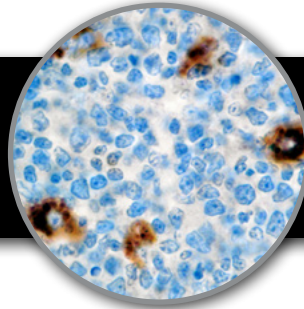


A-1-Antitrypsin

Clone: Polyclonal
Rabbit Polyclonal



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Inset: IHC of A-1-Antitrypsin on a FFPE Tonsil Tissue

Intended Use

For In Vitro Diagnostic Use.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections and cell preparations. Interpretation of results should be performed by a qualified medical professional.

Special Note: Concentrated A-1-Antitrypsin antibody should be diluted to its working dilution in ImmunoDNA Background Blocker (Cat.# BSB 0103, BSB 0104, BSB 0105, BSB 0106 or BSB 0107).

Immunogen

Purified human Alpha-1-Antitrypsin.

Summary and Explanation

Alpha-1-Antitrypsin (A1AT) is a glycoprotein generally known as serum trypsin inhibitor. Alpha-1-Antitrypsin is also referred to as alpha-1 proteinase inhibitor (A1PI) because it is a serine protease inhibitor (serpin), inhibiting a wide variety of proteases. It protects tissues from enzymes of inflammatory cells, especially elastase, and has a reference range in blood of 1.5 - 3.5 gram/liter (in the U.S. the reference range is generally expressed as mg/dL or micromoles), but the concentration can rise many fold upon acute inflammation. In its absence, elastase is free to break down elastin, which contributes to the elasticity of the lungs, resulting in respiratory complications such as emphysema, or COPD (Chronic Obstructive Pulmonary Disease) in adults and cirrhosis in adults or children.

Alpha-1-Antitrypsin is considered to be very useful in the study of inherited AAT deficiency, benign and Malignant Hepatic Tumors and Yolk-Sac Carcinomas. Positive staining for A-1-Antitrypsin may also be used in detection of benign and malignant lesions of a histiocytic nature. Sensitivity and specificity of the results have made this antibody a useful tool in the screening of patients with Cryptogenic Cirrhosis or other forms of liver disease with portal fibrosis of unknown etiology.

Antibody Type	Rabbit Polyclonal	Clone	Polyclonal
Isotype	IgG	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic	Control	Tonsil, Lymph Node
Species Reactivity	Human		

Presentation

A-1-Antitrypsin is a purified immunoglobulin fraction of rabbit antiserum that is filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

Presentations

Catalog Num.	Antibody Type	Dilution	Volume/Qty
BSB 5008	Tinto Prediluted	Ready-to-Use	3.0 mL
BSB 5009	Tinto Prediluted	Ready-to-Use	7.0 mL
BSB 5010	Tinto Prediluted	Ready-to-Use	15.0 mL
BSB 5011	Concentrated	1:250 - 1:1000	0.1 mL
BSB 5012	Concentrated	1:250 - 1:1000	0.5 mL
BSB 5013	Concentrated	1:250 - 1:1000	1.0 mL
BSB 5014	Control Slides	Not Applicable	5 slides

Precautions

1. For professional users only. Ensure results are interpreted by a medical professional.
2. This product contains sodium azide (NaN₃), a toxic chemical which may react with plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent sodium azide build-up.
3. Ensure proper handling procedures are used with reagent. Always wear proper laboratory equipment such as laboratory coat and gloves when handling reagents.
4. Unused solution should be disposed of according to local and federal regulations.
5. Do not ingest reagent. If reagent ingested, contact a poison control center immediately.
6. For complete recommendations for handling biological specimens please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (6).

Storage

Store at 2-8 °C. Do not use after expiration date listed on package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

Specimen Preparation

Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation to ensure best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033) or ImmunoDNA Digestor (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

Frozen sections and cell preparations: The antibody can be used for labeling acetone-fixed frozen sections and acetone-fixed cell preparations.

Staining Procedure

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positive charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
5. Any of three heating methods may be used:

a. TintoRetriever Pressure Cooker or Equivalent

Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA, and place in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.

b. TintoRetriever PT Module or Water Bath Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.

c. Conventional Steamer Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a Steamer, cover and steam for 30-60 minutes.

6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual staining, perform antibody incubation at ambient temperature. For automated staining methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with IHC wash buffer or DI water.
9. Continue IHC staining protocol.

Recommended IHC Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate-Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain	Varies	Varies	Varies

Performance Characteristics

Normal Tissues

Positive (+)	
Normal Liver Cells	Polymorphonuclear leukocytes
Monocytes and their precursors	
Negative (-)	
Lymphocytes	E-rosetting cells
Con A-activated lymphocytes	Natural killer cells
Red blood cells	Erythroblasts

Abnormal Tissues

Positive (+)
Liver cells in liver disease 13/13

Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a medical professional.

References

1. Isaacson P, et al. Lancet. 1979;2:964-965
2. Palmer PE, et al. Am J Clin Pathol. 1974;62:350-354
3. Palmer PE, et al. Cancer. 1980;45:1424-1431
4. Kindblom LG, et al. Hum Pathol. 1982;13:834-840
5. Raintoft I, et al. Hum Pathol. 1979;10:419-424
6. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012.

Symbol Key / Légende des symboles/Erläuterung der Symbole

<div>EC REP</div> <div>EMERGO EUROPE Prinsessegracht 20 2514 AP The Hague The Netherlands</div>	<div></div> <div>Storage Temperature Limites de température Zulässiger Temperaturbereich</div>	<div></div> <div>Manufacturer Fabricant Hersteller</div>	<div>REF</div> <div>Catalog Number Référence du catalogue Bestellnummer</div>
<div>IVD</div> <div>In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro In-Vitro-Diagnostikum</div>	<div></div> <div>Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten</div>	<div></div> <div>Expiration Date Utiliser jusque Verwendbar bis</div>	<div>LOT</div> <div>Lot Number Code du lot Chargenbezeichnung</div>



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