

Product datasheet

Anti-alpha 1 Antitrypsin antibody [EPR10832(B)] ab167414

Recombinant RabMAb

[1 References](#) [3 Images](#)

Overview

Product name	Anti-alpha 1 Antitrypsin antibody [EPR10832(B)]
Description	Rabbit monoclonal [EPR10832(B)] to alpha 1 Antitrypsin
Host species	Rabbit
Tested applications	Suitable for: WB, IP Unsuitable for: Flow Cyt, ICC/IF or IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human alpha 1 Antitrypsin aa 150-250. The exact sequence is proprietary.
Positive control	Human plasma, serum, fetal liver and HepG2 lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA</p>

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR10832(B)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab167414 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

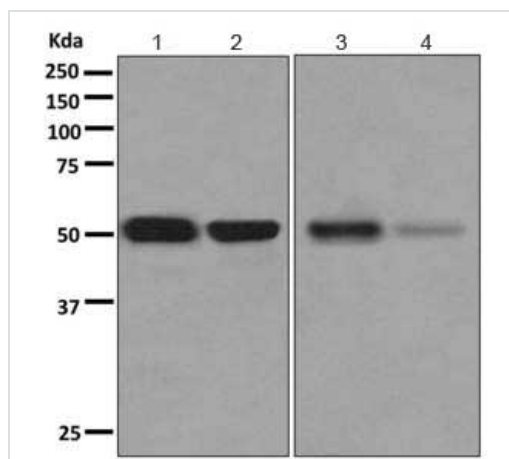
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Predicted molecular weight: 47 kDa.
IP		1/10 - 1/100.

Application notes Is unsuitable for Flow Cyt, ICC/IF or IHC-P.

Target

Function	<p>Inhibitor of serine proteases. Its primary target is elastase, but it also has a moderate affinity for plasmin and thrombin. 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.</p> <p>Short peptide from AAT: 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).</p>
Tissue specificity	Ubiquitous. Expressed in leukocytes and plasma.
Involvement in disease	Alpha-1-antitrypsin deficiency
Sequence similarities	Belongs to the serpin family.
Domain	<p>The reactive center loop (RCL) extends out from the body of the protein and directs binding to the target protease. The protease cleaves the serpin at the reactive site within the RCL, establishing a covalent linkage between the carboxyl group of the serpin reactive site and the serine hydroxyl of the protease. The resulting inactive serpin-protease complex is highly stable.</p>
Post-translational modifications	<p>N-glycosylated. Differential glycosylation produces a number of isoforms. N-linked glycan at Asn-107 is alternatively di-antennary, tri-antennary or tetra-antennary. The glycan at Asn-70 is di-antennary with trace amounts of tri-antennary. Glycan at Asn-271 is exclusively di-antennary. Structure of glycans at Asn-70 and Asn-271 is Hex5HexNAc4. The structure of the antennae is Neu5Ac(alpha1-6)Gal(beta1-4)GlcNAc attached to the core structure Man(alpha1-6)[Man(alpha1-3)]Man(beta1-4)GlcNAc(beta1-4)GlcNAc. Some antennae are fucosylated, which forms a Lewis-X determinant.</p> <p>Proteolytic processing may yield the truncated form that ranges from Asp-30 to Lys-418.</p>
Cellular localization	Secreted. Endoplasmic reticulum. The S and Z allele are not secreted effectively and accumulate intracellularly in the endoplasmic reticulum and Secreted, extracellular space, extracellular matrix.

Images



Western blot - Anti-alpha 1 Antitrypsin antibody [EPR10832(B)] (ab167414)

All lanes : Anti-alpha 1 Antitrypsin antibody [EPR10832(B)] (ab167414) at 1/1000 dilution

Lane 1 : Human plasma lysate

Lane 2 : Human serum lysate

Lane 3 : Human fetal liver lysate

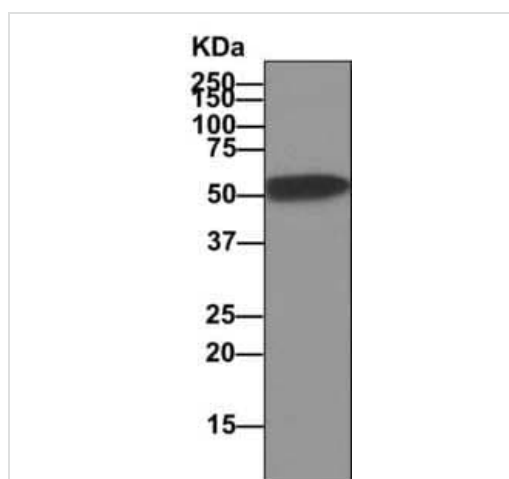
Lane 4 : HepG2 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat anti-Rabbit HRP conjugated antibody at 1/2000 dilution

Predicted band size: 47 kDa



Immunoprecipitation - Anti-alpha 1 Antitrypsin antibody [EPR10832(B)] (ab167414)

Detection of alpha 1 Antitrypsin by Western Blot of Immunoprecipitate. Human plasma lysate immunoprecipitated using ab167414 at 1/10 dilution, followed by immunoblotting using HRP-conjugated anti-rabbit IgG preferentially detecting the non-reduced form of rabbit IgG.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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