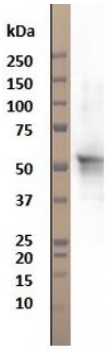
CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	Alpha-1-antitrypsin, Human, Polyclonal		
Catalog number	HP9063		
Lot number	-	**Expiry date**	-
Volume	1 ml	**Amount**	100 µg
Formulation	0.2 µm filtered in PBS+0.1%BSA+0.02%NaN3	**Concentration**	100 µg/ml
Host species	Goat IgG	**Conjugate**	None
Endotoxin	N.A.	**Purification**	Protein G
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes						•		•
No								
N.D.	•	•	•	•	•		•	

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



Western blot: reduced western blot with monomeric alpha-1-antitrypsin (0.5 µg) shows a band of ~60 kDa when HP9063 is used. The concentration of HP9063 was 1 µg/ml.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions.

- IA: Polyclonal antibody HP9063 can be used as detection antibody.
- W: A reduced sample treatment and SDS-Page was used. The band size is ~60 kDa

General Information

Description

The goat polyclonal antibody recognizes human alpha-1-antitrypsin. This protein is a member of the serine protease inhibitor (serpin) superfamily which are proteins known for their ability to inhibit proteases. It is the most abundant circulating protease inhibitor known. It mainly targets enzymes released by neutrophils, especially neutrophil elastase (NE) but also proteinase 3 (PR3) and Cathepsin G (CG). Serpinopathies are conformational diseases characterized by the polymerization and intracellular retention of members of the serpin superfamily. The best known is alpha-1 antitrypsin deficiency, with the most common severe deficiency allele being the Z mutation (Glu342Lys). This severe autosomal dominant disorder causes the protein to undergo a conformational transition and form ordered polymers that are retained within hepatocytes. Due to this accumulation of polymers in hepatocytes, blood alpha-1 trypsin levels will decrease leading to chronic uninhibited tissue breakdown. This causes the degradation especially of lung tissue which will eventually lead to pulmonary emphysema. In addition, accumulation of polymers in hepatocytes causes liver diseases such as neonatal hepatitis, cirrhosis, and hepatocellular carcinoma.

Immunogen

Monomeric Z AAT purified from donor plasma

Aliases	Alpha-1 protease inhibitor, Alpha-1-antiproteinase, Serpin A1
Gene	Gene name: SERPINA1, AAT, PI Entrez Gene ID 5265 Uniprot P01009
Storage&stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC	Date
Robbert Zwinkels	15/03/2018

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.