

ARG82830 Human alpha 1 Antitrypsin ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG82830-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82830-002	Standard	2 X 100 ng/vial	4°C
ARG82830-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG82830-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG82830-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG82830-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG82830-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG82830-008	25X Wash buffer	20 ml	4°C
ARG82830-009	TMB substrate	10 ml (Ready to use)	4°C (Protect from light)
ARG82830-010	STOP solution	10 ml (Ready to use)	4°C
ARG82830-011	Plate sealer	4 strips	Room temperature

Summary

Product Description	ARG82830 Human alpha 1 Antitrypsin ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human alpha 1 Antitrypsin in serum, plasma (EDTA, heparin), cell culture supernatants and urine.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	alpha 1 Antitrypsin
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	0.78 ng/ml
Sample Type	Serum, plasma (EDTA, heparin), cell culture supernatants and urine.
Standard Range	1.56 - 100 ng/ml
Sample Volume	100 µl
Precision	Intra-Assay CV: 7.0% Inter-Assay CV: 7.9%

Alternate Names Serpin A1; alpha1AT; Alpha-1-antiproteinase; Alpha-1 protease inhibitor; AAT; A1A; A1AT; PRO2275; Alpha-1-antitrypsin; PI1; PI; SPAAT

Application Instructions

Assay Time ~ 5 hours

Properties

Form 96 well

Storage instruction Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol SERPINA1

Gene Full Name serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1

Background The protein encoded by this gene is secreted and is a serine protease inhibitor whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. Defects in this gene can cause emphysema or liver disease. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

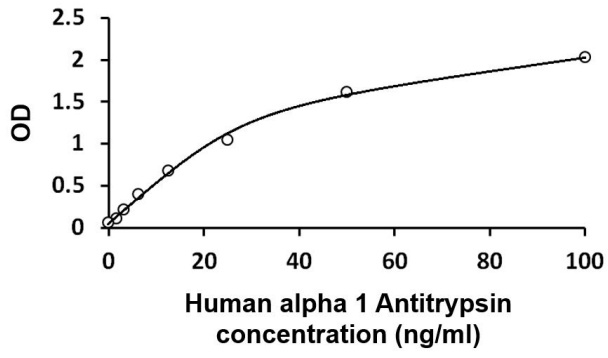
Function Inhibitor of serine proteases. Its primary target is elastase, but it also has a moderate affinity for plasmin and thrombin. Irreversibly inhibits trypsin, chymotrypsin and plasminogen activator. The aberrant form inhibits insulin-induced NO synthesis in platelets, decreases coagulation time and has proteolytic activity against insulin and plasmin.

[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). [UniProt]

PTM 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.

Proteolytic processing may yield the truncated form that ranges from Asp-30 to Lys-418. [UniProt]

Cellular Localization Secreted. Endoplasmic reticulum. Note=The S and Z allele are not secreted effectively and accumulate intracellularly in the endoplasmic reticulum. Short peptide from AAT: Secreted, extracellular space, extracellular matrix. [UniProt]



ARG82830 Human alpha 1 Antitrypsin ELISA Kit standard curve image

ARG82830 Human alpha 1 Antitrypsin ELISA Kit results of a typical standard run with optical density reading at 450 nm.