



Product datasheet

Human Antithrombin III ELISA Kit ab108801

★★★★★ 1 Abreviews 2 References 7 Images

Overview

|                    |   |   |      |      |
|--------------------|---|---|------|------|
| Product name       | Human Antithrombin III ELISA Kit  |   |      |      |
| Detection method   | Colorimetric  |   |      |      |
| Precision          | Intra-assay   |   |      |      |
|                    | Sample  | n | Mean | SD   |
|                    | Overall   |   |      | 2.5% |
|                    | Inter-assay   |   |      |      |
|                    | Sample  | n | Mean | SD   |
|                    | Overall   |   |      | 9.4% |
| Sample type        | Saliva, Milk, Urine, Serum, Plasma, Cerebral Spinal Fluid   |   |      |      |
| Assay type         | Sandwich (quantitative)   |   |      |      |
| Sensitivity        | = 0.71 ng/ml  |   |      |      |
| Range              | 6.3 ng/ml - 82.5 ng/ml  |   |      |      |
| Recovery           | 94 %  |   |      |      |
| Assay time         | 4h 0m   |   |      |      |
| Assay duration     | Multiple steps standard assay   |   |      |      |
| Species reactivity | Reacts with: Human  |   |      |      |
| Product overview   | Abcam's Antithrombin III Human <i>in vitro</i> ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of Antithrombin III in urine, milk, saliva, cerebrospinal fluid, plasma, and serum. |   |      |      |

An antithrombin III specific antibody has been precoated onto 96-well plates and blocked. Standards or test samples are added to the wells and subsequently an antithrombin III specific biotinylated detection antibody is added and then followed by washing with wash buffer. Streptavidin-Peroxidase Complex is added and unbound conjugates are washed away with wash buffer. TMB is then used to visualize Streptavidin-Peroxidase enzymatic reaction. TMB is catalyzed by Streptavidin-Peroxidase to produce a blue color product that changes into yellow after adding acidic stop solution. The density of yellow coloration is directly proportional to the amount of antithrombin III captured in plate.

The entire kit may be stored at -20°C for long term storage before reconstitution - Avoid repeated freeze-thaw cycles.

**Platform** Microplate

## Properties

**Storage instructions** Store at -20°C. Please refer to protocols.

| Components                                       | 1 x 96 tests |
|--|--------------|
| 100X Streptavidin-Peroxidase Conjugate           | 1 x 80µl     |
| 10X Diluent N Concentrate                        | 1 x 30ml     |
| 20X Wash Buffer Concentrate                      | 2 x 30ml     |
| 40X Biotinylated Human Antithrombin III Antibody | 1 x 150µl    |
| Antithrombin III Microplate (12 x 8 well strips) | 1 unit       |
| Antithrombin III Standard                        | 1 vial       |
| Chromogen Substrate                              | 1 x 7ml      |
| Sealing Tapes                                    | 3 units      |
| Stop Solution                                    | 1 x 11ml     |

**Function** Most important serine protease inhibitor in plasma that regulates the blood coagulation cascade. AT-III inhibits thrombin as well as factors IXa, Xa and XIa. Its inhibitory activity is greatly enhanced in the presence of heparin.

**Tissue specificity** Found in plasma.

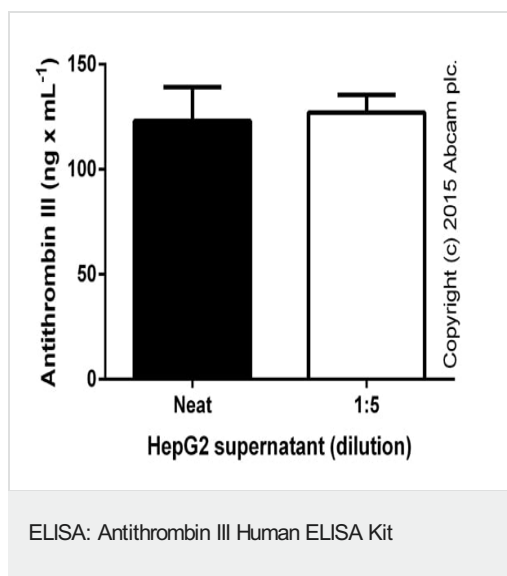
**Involvement in disease** Defects in SERPINC1 are the cause of antithrombin III deficiency (AT3D) [MIM:613118]. AT3D is an important risk factor for hereditary thrombophilia, a hemostatic disorder characterized by a tendency to recurrent thrombosis. AT3D is classified into 4 types. Type I: characterized by a 50% decrease in antigenic and functional levels. Type II: has defects affecting the thrombin-binding domain. Type III: alteration of the heparin-binding domain. Plasma AT-III antigen levels are normal in type II and III. Type IV: consists of miscellaneous group of unclassifiable mutations.

**Sequence similarities** Belongs to the serpin family.

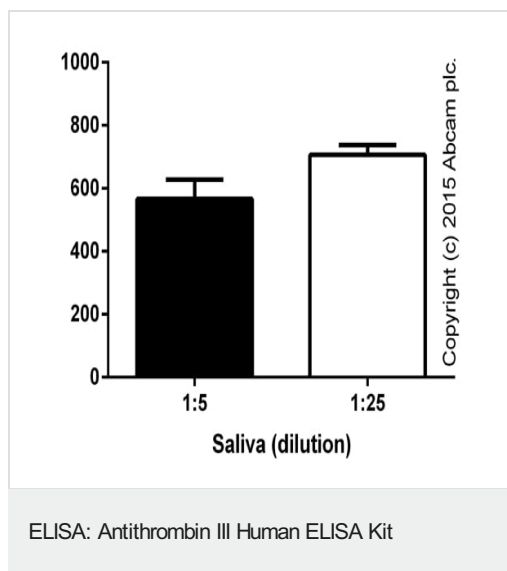
**Post-translational modifications** Phosphorylation sites are present in the extracellular medium.

**Cellular localization** Secreted > extracellular space.

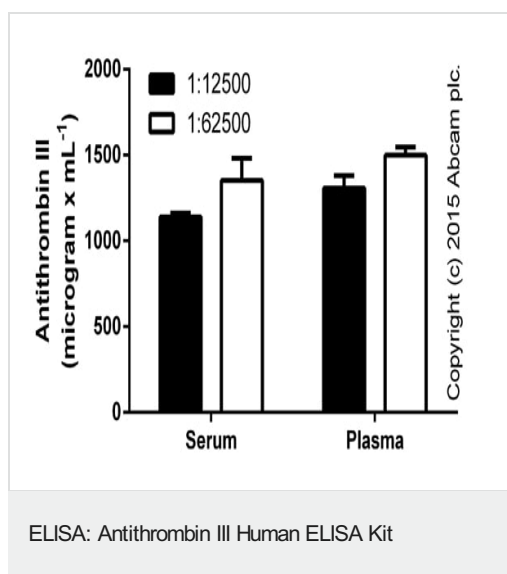
## Images



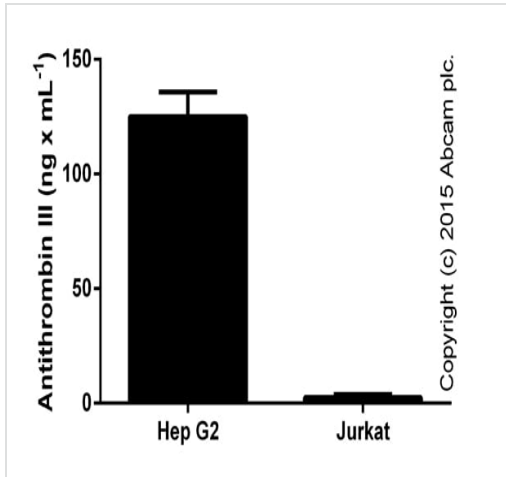
Linearity: Antithrombin III in samples at different dilutions, corrected for the factor of dilution (duplicates +/- SD).



Linearity: Antithrombin III in samples at different dilutions, corrected for the factor of dilution (duplicates +/- SD), showing ng x mL<sup>-1</sup> on y-axis.

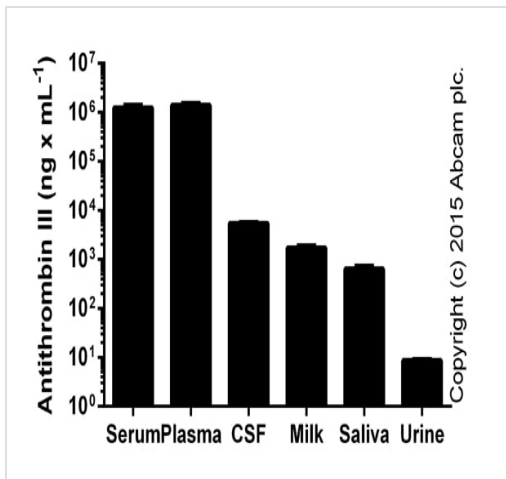


Linearity: Antithrombin III in samples at different dilutions, corrected for the factor of dilution (duplicates +/- SD).



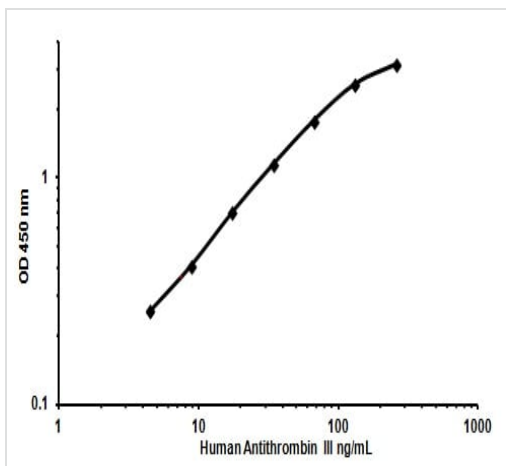
Antithrombin III in cell culture supernatants (duplicates +/- SD), tested in the dilution range of 1:1-1:100.

ELISA: Antithrombin III Human ELISA Kit



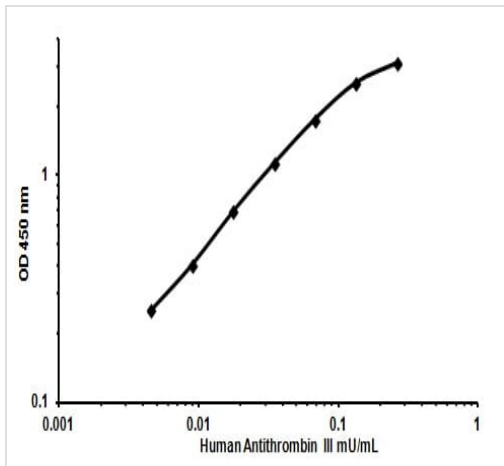
Antithrombin III in human biological fluids (duplicates +/- SD). The samples were differently diluted (serum and Li-heparine plasma: 1e4-1e5; CSF: 1e2-1e3; milk: 10-100; saliva: 5-100; urine: neat).

ELISA: Antithrombin III Human ELISA Kit



Representative standard curve using ab108801.

Typical Standard Curve



Representative standard curve using ab108801.

Typical Standard Curve

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