

## Human A2M/Alpha2-Macroglobulin ELISA Kit | A2M elisa kit

Human A2M/Alpha2-Macroglobulin Quick ELISA Kit

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|-------------------------------|----------------------------|
| CATALOG #<br><b>AAA125890</b> | REACTIVITY<br><b>Human</b> |
|-------------------------------|----------------------------|

### PRODUCT SYNONYMS

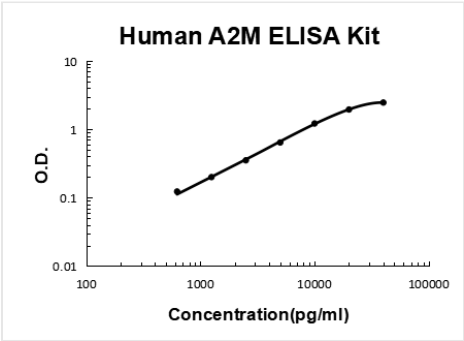
A2M/Alpha2-Macroglobulin; Human A2M/Alpha2-Macroglobulin Quick ELISA Kit; alpha 2-Macroglobulin|A2M; alpha 2Macroglobulin; alpha 2-Macroglobulin; alpha-2-M; alpha-2-macroglobulin; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5; CPAMD5; CPAMD5DKFZp779B086; FWP007; S863-7; A2M elisa kit

### PRODUCT SPECIFICATIONS

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| Reactivity                   | Human                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Specificity                  | Natural and recombinant Human A2M                                                                                                                                                                                                                                                                                                                                                                                                         |
| Assay Type                   | Colorimetric sandwich                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Samples                      | cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA)                                                                                                                                                                                                                                                                                                                                                                 |
| Detection Range              | 625pg/ml-40,000pg/ml                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sensitivity                  | <20pg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Capture/Detection Antibodies | Capture antibody- polyclonal antibody from goat Detection antibody- polyclonal antibody from goat                                                                                                                                                                                                                                                                                                                                         |
| Sample Data                  | Concentration(pg/ml) 0 625 1250 2500 5000 10000 20000 40000<br>O.D. 0.067 0.190 0.267 0.419 0.709 1.285 2.017 2.532                                                                                                                                                                                                                                                                                                                       |
| Intra-Assay Precision        | Sample 1 2 3 <br>n 16 16 16 <br>Mean(pg/ml) 1336 3774 26412 <br>Standard deviation 93.52 233.99 1980.9 <br>CV(%) 7% 6.2% 7.5%                                                                                                                                                                                                                                                                                                             |
| Inter-Assay Precision        | Sample 1 2 3 <br>n 24 24 24 <br>Mean(pg/ml) 1412 3693 26457 <br>Standard deviation 108.72 249.67 2090.1 <br>CV(%) 7.7% 6.3% 7.9%                                                                                                                                                                                                                                                                                                          |
| Reproducibility              | To assay reproducibility, three samples with differing target protein concentrations were assayed using four different lots.<br>Lots: Lot 1 (pg/ml) Lot 2 (pg/ml) Lot 3 (pg/ml) Lot 4 (pg/ml) Mean (pg/ml) Standard Deviation CV (%)<br>Sample 1: 1336 1254 1452 1396 1360 61.18 4.5%<br>Sample 2: 3774 3674 3364 3354 3542 254.99 7.2%<br>Sample 3: 26412 33012 29451 29456 29583 1804.55 6.1%<br>*number of samples for each test n=16. |
| Cross Reactivity             | There is no detectable cross-reactivity with other relevant proteins.                                                                                                                                                                                                                                                                                                                                                                     |
| Immunogen                    | Expression system for standard: from human plasma                                                                                                                                                                                                                                                                                                                                                                                         |
| Anticoagulant                | heparin or EDTA                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Benefits                     | The Quick ELISA kits, assay takes less than 1.5 hours. Detect Human A2M/Alpha2-Macroglobulin with <20pg/ml sensitivity. Format: 96-well plate with removable strips.<br>This is a TMB colorimetric sandwich ELISA kit with short assay time and quick experiment set up.                                                                                                                                                                  |

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| Principle               | <p>Human A2M Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid phase immunoassay specially designed to measure Human A2M in cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA). It uses our proprietary Quick ELISA technology. Quick ELISA technology employs capture antibodies conjugated to an affinity tag that is recognized by the polyclonal antibody used to coat our Quick ELISA plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. The kit contains recombinant Human A2M with immunogen: Expression system for standard: from human plasma.</p> <p>To measure Human A2M, add standards and samples to the wells, then add antibody cocktail. Wash the wells with PBS or TBS buffer, and add TMB. TMB is substrate to HRP and will be catalyzed to produce a blue color product, which changes into yellow after adding acidic stop solution. The density of the yellow product is linearly proportional to Human A2M in the sample. Read the density of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Human A2M in the sample.</p> |
| Assay Procedure Step 1  | 40000pg/ml, 20000pg/ml,10000pg/ml, 5000pg/ml, 2500pg/ml, 1250pg/ml, 625pg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| TMB Incubation Time     | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Preparation and Storage | Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles. (Shipped with wet ice.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## IMAGES



Application Data

## ADDITIONAL INFORMATION

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for A2M elisa kit | Alpha-2-macroglobulin, also known as A2M or CPAMD5 is a large plasma protein found in the blood. This gene is mapped to 12p13. 31. Alpha-2-macroglobulin is a protease inhibitor and cytokine transporter. It inhibits many proteases, including trypsin, thrombin and collagenase. A2M is implicated in Alzheimer disease(AD) due to its ability to mediate the clearance and degradation of A-beta, the major component of beta-amyloid deposits. This gene is able to inhibit all four classes of proteinases by a unique 'trapping' mechanism. This protein has a peptide stretch, called the 'bait region' which contains specific cleavage sites for different proteinases. When a proteinase cleaves the bait region, a conformational change is induced in the protein which traps the proteinase. The entrapped enzyme remains active against low molecular weight substrates(activity against high molecular weight substrates is greatly reduced). Following cleavage in the bait region a thioester bond is hydrolyzed and mediates the covalent binding of the protein to the proteinase. |
| Product Categories/Family for A2M elisa kit   | ELISA kits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## NCBI AND UNIPROT INFORMATION

|                           |             |
|---------------------------|-------------|
| NCBI GI #                 | 66932947    |
| NCBI GeneID               | 2           |
| NCBI Accession #          | NP_000005.2 |
| NCBI GenBank Nucleotide # | NM_000014.4 |

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|----------------------------------|-----------------------------------------------------------------------------------------------------|
| UniProt Accession #              | P01023; Q13677; Q59F47; Q5QTS0; Q68DN2; Q6PIY3; Q6PN97                                              |
| Molecular Weight                 | 163,291 Da                                                                                          |
| NCBI Official Full Name          | alpha-2-macroglobulin                                                                               |
| NCBI Official Synonym Full Names | alpha-2-macroglobulin                                                                               |
| NCBI Official Symbol             | A2M                                                                                                 |
| NCBI Official Synonym Symbols    | A2MD; CPAMD5; FWP007; S863-7                                                                        |
| NCBI Protein Information         | alpha-2-macroglobulin; alpha-2-M; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5 |
| UniProt Protein Name             | Alpha-2-macroglobulin                                                                               |
| UniProt Gene Name                | <b>A2M</b>                                                                                          |
| UniProt Synonym Gene Names       | CPAMD5; Alpha-2-M                                                                                   |
| UniProt Entry Name               | A2MG_HUMAN                                                                                          |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/human-elisa-kits/a2m-alpha2-macroglobulin/125890>