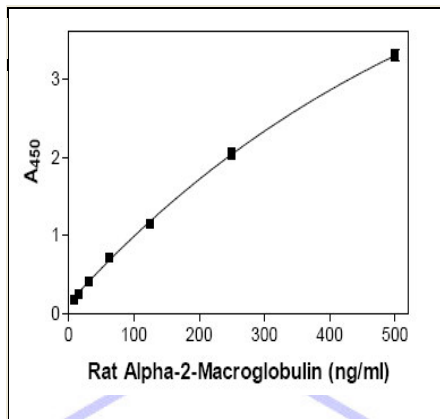


Rat α 2-Macroglobulin (A2M) ELISA KIT Cat. # 610-420-A2M

A2M ELISA | Quantitative, Sandwich ELISA | Stds = 7.8 – 500 ng/ml; Sample = 100 μ l; 110 min assay | Sensitivity ~7.8 ng/ml



ELISA Kit Features

- Anti-Rat A2M Pre-coated, stabilized, ready-to-use 96-well strip plate, suitable for multiple runs over 6-12 months.
- Convenient reference standard, Lyophilized, use to make A2M working stds: 500, 250, 125, 62.5, 31.2, 15.6, and 7.8 ng/ml.
- Sensitivity ~7.8 ng/ml; 100 μ l samples
- 110 minute, 3 incubation steps at room temp
- Contains all necessary reagents.

This kit is for measuring Rat A2M in serum, plasma or urine.

For in vitro research use only.

Assay Procedure:

Allow all reagents to reach room temperature. Arrange and label required number of strips.

1. **Pipet 100 μ l each of standards and samples** (diluted as required) into appropriate wells. Mix gently. Incubate at **room temp. for 45 min** on an orbital shaker.
2. **Aspirate and wash** the plate 5-6 times **Pipet 100 μ l of anti-A2M-HRP conjugate** into each well. Mix gently. Incubate at **room temp. for 45 min** on an orbital shaker.
3. **Aspirate and wash** the plate 5-6 times. Add **100 μ l of TMB Substrate** solution to all wells, mix gently, and incubate at room temp. for **20 min** on an orbital shaker.
4. **Pipet 100 μ l of stop solution** into each well and mix gently (blue color turns yellow). **Measure OD at A450 nm**. Calculate concentration of A2M in each sample using the Standard curve.

Kit Contents

Anti A2M coated strip plate (8 wells x 12 strips)
Trypsin, Lyophilized
Anti- A2M-HRP Conjugate, 11 ml
Wash Buffer (20X), 50 ml
Stop Solution, 11 ml

Rat A2M Reference Standard, Lyophilized
Trypsin Inhibitor, Lyophilized
Diluent, (10X) 25 ml
TMB Substrate, 11 ml
Instruction Manual, 1 each

General Information

Alpha-2-Macroglobulin, also known as α 2-macroglobulin and abbreviated as α 2M and **A2M**, is a large plasma protein found in the blood. It is produced by the liver, and is a major component of the alpha-2 band in protein electrophoresis. A2M is composed of four identical subunits bound together by -S-S- bonds. It is able to inactivate an enormous variety of proteinases (including serine-, cysteine-, aspartic- and metalloproteinases). A2M has in its structure a 35 amino acid "bait" region. Proteinases binding and cleaving the bait region become bound to A2M. The proteinase-A2M complex is recognized by macrophage receptors and cleared from the system. It functions as an inhibitor of coagulation by inhibiting thrombin. It functions as an inhibitor of fibrinolysis by inhibiting plasmin and kallikrein

A2M levels are increased in nephrotic syndrome, a condition wherein the kidneys start to leak out some of the smaller blood proteins. Because of its size, A2M is retained in the bloodstream. Increased production of all proteins means A2M concentration increases. This increase has little adverse effect on the health, but is used as a diagnostic clue. Longstanding chronic renal failure can lead to amyloid by A2M. It is a negative acute phase reactant, the levels of which decrease in mouse serum or plasma as a result of inflammation. It has also been demonstrated that mouse A2M levels increase significantly with age, after gonadectomy and during pregnancy.

ADI's Rat A2M ELISA provides is a rapid, specific and sensitive assay for measuring Rat A2M in serum or other biological fluids.

Related ELISA kits

610-100-MCL	Mouse Clusterin ELISA kit	600-720-A2M	Mouse Alpha-2-Macroglobulin ELISA Kit
600-460-MTN	Mouse Skeletal Muscle Troponin 1 (Tn-I)	600-450-CTN	Mouse Cardiac Troponin 1 (Tn-I) ELISA Kit
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