



Alpha-1 Acid Glycoprotein 1 (Human) ELISA Kit

11/19

(Catalog # E4783-100; 96 assays, Storage at 4°C)

I. Introduction:

Alpha 1 acid glycoprotein (AGP1), also known as orosomucoid, is an acute phase protein produced in liver cells and found at high levels in human plasma. AGP1 levels can change in response to certain drugs, pregnancy, and some disease states such as HIV infection. It is a carrier for basic molecules, protease inhibitors, and steroids in the blood. AGP1 has been recognized as one of four possible circulating biomarkers for estimating the five-year risk of all-cause mortality. BioVision's Alpha 1 Acid Glycoprotein 1 ELISA Kit is based on Sandwich-ELISA principle. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to Human AGP1. Standards or samples are added to the micro ELISA plate wells and combined with the specific antibody. Then a biotinylated detection antibody specific for Human AGP1 and Avidin-Horseradish Peroxidase (HRP) conjugate are added successively to each micro plate well and incubated. Free components are washed away. The substrate solution is added to each well. Only those wells that contain Human AGP1, biotinylated detection antibody and Avidin-HRP conjugate will appear blue in color. The enzyme-substrate reaction is terminated by the addition of stop solution and the color turns yellow. The OD value is proportional to the concentration of Human AGP1. The concentration of Human AGP1 in the samples can be calculated by comparing the OD of the samples to the standard curve.

II. Applications:

In vitro, quantitative determination of human Alpha-1 Acid Glycoprotein 1

Sensitivity: 1.88 ng/ml

Detection Range: 3.13 - 200 ng/ml

Specificity: This kit recognizes Human AGP1 in samples. No Significant cross-reactivity or interference between Human AGP1 and analogues was observed.

Precision: Coefficient of variation is < 10%

III. Sample Type:

Serum, plasma and other biological fluids

IV. Kit Contents:

Components	E4783-100	Part Number
Micro ELISA Plate	8 wells x12 strips	E4783-100-1
Reference Standard	2 vials	E4783-100-2
Biotinylated Detection Ab (100x)	120 µl	E4783-100-3
HRP Conjugate (100x)	120 µl	E4783-100-4
Standard & Sample Diluent	20 ml	E4783-100-5
Biotinylated Detection Antibody Diluent	14 ml	E4783-100-6
HRP Conjugate Diluent	14 ml	E4783-100-7
Wash Buffer (25X)	30 ml	E4783-100-8
Substrate Reagent	10 ml	E4783-100-9
Stop Solution	10 ml	E4783-100-10
Plate Sealer	4	E4783-100-11

V. User Supplied Reagents and Equipment:

- Microplate reader capable of measuring absorbance at 450 nm
- Clean Eppendorf tubes for preparing standards or sample dilutions

VI. Storage and Handling:

Store at 4°C.

VII. Reagent and Sample Preparation:

Bring all reagents to room temperature before use. Before using the kit, spin tubes and bring down all components to the bottom of tubes.

- **Wash Buffer (25X):** Dilute 30 ml of Concentrated Wash Buffer with 720 ml of deionized or distilled water to prepare 750 ml of Wash Buffer. (Note: if crystals have formed in the concentrate, warm it in a 40°C water bath and mix it gently until the crystals have completely dissolved)
- **Biotinylated Detection Antibody working solution:** Calculate the required amount (100 µL/well). Centrifuge the stock tube before use, dilute the 100x Concentrated Biotinylated Detection Antibody to 1x working solution with Biotinylated Detection Antibody Diluent.
- **HRP Conjugate working solution:** Calculate the required amount before the experiment (100 µL/well). In preparation, slightly more than calculated should be prepared. Dilute the 100x Concentrated HRP Conjugate to 1x working solution with Concentrated HRP Conjugate Diluent.

