



TIMP-2 (Rat) ELISA Kit

06/20

(Catalog # E4845-100; 96 assays, Storage at 4°C)

I. Introduction:

TIMP metalloproteinase inhibitor 2 is also known as TIMP-2, which belongs to the protease inhibitor I35 (TIMP) family. This family proteins are natural inhibitors of the matrix metalloproteinases, a group of peptidases involved in degradation of the extracellular matrix. In addition to an inhibitory role against metalloproteinases, TIMP2 has a unique role among TIMP family members in its ability to directly suppress the proliferation of endothelial cells. BioVision's TIMP-2 (Rat) ELISA Kit is based on the Sandwich-ELISA principle. The micro ELISA plate provided in this kit has been pre-coated with an antibody specific to Rat TIMP-2. Standards or samples are added to the micro ELISA plate wells that bind to the specific antibody. Then a biotinylated detection antibody specific for Rat TIMP-2 and Avidin-Horseradish Peroxidase (HRP) conjugate are added successively to each micro plate well and incubated. The wells are washed, a TMB substrate solution is added to the wells and blue color develops in proportion to the amount of TIMP-2 bound. The enzyme-substrate reaction is terminated by the addition of stop solution and the color turns yellow. The optical density (OD) is measured spectrophotometrically at a wavelength of 450 nm. The OD value is proportional to the concentration of Rat TIMP-2. The concentration of Rat TIMP-2 in the samples can be calculated by comparing the OD of the samples to the standard curve.

II. Applications:

in vitro quantitative determination of Rat TIMP-2 concentrations in serum, plasma and other biological fluids.

Sensitivity: 0.38 ng/mL

Detection Range: 0.63-40 ng/mL

Specificity: No significant crossreactivity or interference between Rat TIMP-2 and analogues was observed.

Precision: Coefficient of variation is < 10%.

III. Sample Type:

Serum, plasma and other biological fluids

IV. Kit Contents:

Components	E4845-100	Part Number	Storage
Micro ELISA Plate	8 wells x12 strips	E4845-100-1	-20°C
Reference Standard	2 vials	E4845-100-2	-20°C
Biotinylated Detection Ab (100x)	120 µl	E4845-100-3	-20°C
HRP Conjugate (100x)	120 µl	E4845-100-4	-20°C (protect from light)
Reference Standard & Sample Diluent	20 ml	E4845-100-5	4°C
Biotinylated Detection Antibody Diluent	14 ml	E4845-100-6	4°C
HRP Conjugate Diluent	14 ml	E4845-100-7	4°C
Wash Buffer (25X)	30 ml	E4845-100-8	4°C
Substrate Reagent	10 ml	E4845-100-9	4°C (protect from light)
Stop Solution	10 ml	E4845-100-10	4°C
Plate Sealer	4	E4845-100-11	4°C

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:

An unopened kit can be stored at 2-8°C for 1 month. If the kit is not used within 1 month, store the items separately according to the above mentioned conditions once the kit is received.

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.

