



# CTGF (Human) ELISA Kit

06/20

(Catalog # E4837-100; 96 assays, Storage at 4°C)

## I. Introduction:

CTGF is a major connective tissue mitogen secreted by vascular endothelial cells. It promotes proliferation and differentiation of chondrocytes. It also mediates heparin- and divalent cation-dependent cell adhesion in many cell types including fibroblasts, myofibroblasts, endothelial and epithelial cells and enhances fibroblast growth factor-induced DNA synthesis. BioVision's CTGF (Human) 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 Human CTGF. Standards or samples are added to the micro ELISA plate wells that bind to the specific antibody. Then a biotinylated detection antibody specific for Human CTGF 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 CTGF 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 Human CTGF. The concentration of Human CTGF 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 CTGF concentrations in serum, plasma and other biological fluids.

**Sensitivity:** 37.50 pg/mL

**Detection Range:** 62.50-4000 pg/mL

**Specificity:** No significant crossreactivity or interference between Human CTGF and analogues was observed.

**Precision:** Coefficient of variation is < 10%.

## III. Sample Type:

Serum, plasma and other biological fluids

## IV. Kit Contents:

Components	E4837-100	Part Number	Storage
Micro ELISA Plate	8 wells x12 strips	E4837-100-1	-20°C
Reference Standard	2 vials	E4837-100-2	-20°C
Biotinylated Detection Ab (100x)	120 µl	E4837-100-3	-20°C
HRP Conjugate (100x)	120 µl	E4837-100-4	-20°C (protect from light)
Reference Standard & Sample Diluent	20 ml	E4837-100-5	4°C
Biotinylated Detection Antibody Diluent	14 ml	E4837-100-6	4°C
HRP Conjugate Diluent	14 ml	E4837-100-7	4°C
Wash Buffer (25X)	30 ml	E4837-100-8	4°C
Substrate Reagent	10 ml	E4837-100-9	4°C (protect from light)
Stop Solution	10 ml	E4837-100-10	4°C
Plate Sealer	4	E4837-100-11	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.



