



## Connective Tissue Growth Factor, human recombinant (rHuCTGF)

**Catalog No:** 97051  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** CCN2, NOV2, HCS24, IGFBP8, MGC102839, CTGF, Connective Tissue Growth Factor

### Background

Connective Tissue Growth Factor belongs to the CCN family of proteins. The CCN family presently consists of six members in human also known as: Cyr61 (Cystein rich 61), CTGF (Connective Tissue Growth Factor), Nov (Nephroblastoma Overexpressed gene), WISP-1, 2 and 3 (Wnt-1 Induced Secreted Proteins). The CCN genes encode secreted proteins associated with the Extracellular Matrix (ECM) and cell membrane. CCN proteins are matricellular proteins which are involved in the regulation of various cellular functions including: proliferation, differentiation, survival, adhesion and migration. They are expressed in derivatives of the three embryonic sheets and are implicated in the development of kidney, nervous system, muscle, bone marrow, cartilage and bone. During adulthood, they are implicated in wound healing, bone fracture repair, and pathologies such as: fibrosis, vascular ailments and tumorigenesis. Full length secreted CCN proteins can show an antiproliferative activity, whereas truncated isoforms are likely to stimulate proliferation and behave as oncogenes.

### Description

CTGF human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 98 amino acids and having a molecular mass of 11.2 kDa. CTGF is purified by proprietary chromatographic techniques.

### Physical Appearance

Lyophilized

### Formulation

CTGF was lyophilized from 1 mg/ml solution containing 10 mM sodium acetate buffer pH 6.

### Solubility

Reconstitute at 0.1 mg/ml with 5 mM sodium acetate, pH-6.

### Stability

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

### Purity

Greater than 95% as determined by SDS-PAGE.

### Amino Acid Sequence

MGKKCIRTPK ISKPIKFELS GCTSMKTYRA KFCGVCTDGR CCTPHRTTTL PVEFKCPDGE VMKKNMMFIK TCACHYNCPG  
DNDIFESLYY RKMYGDMA

### Activity

Determined by the dose-dependent stimulation of the proliferation of HUVEC cells. The expected ED50 for this effect is 1 - 2 µg/ml, corresponding to a specific activity of 500 - 1000 units/mg.



**Usage**

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