

APA010Hu03 100µg
Active Connective Tissue Growth Factor (CTGF)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Gln27~Ala349

Tags: N-terminal His and GST Tag

Purity: >80%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

Original Concentration: 200µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 7.9

Predicted Molecular Mass: 65.5kDa

Accurate Molecular Mass: 65kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

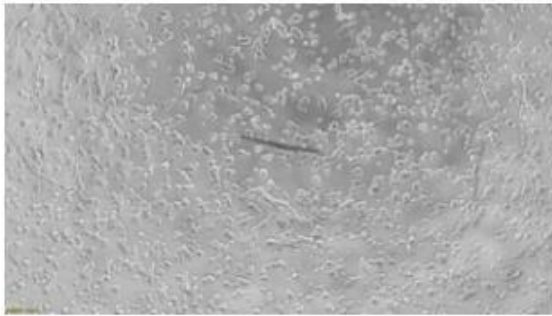
Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

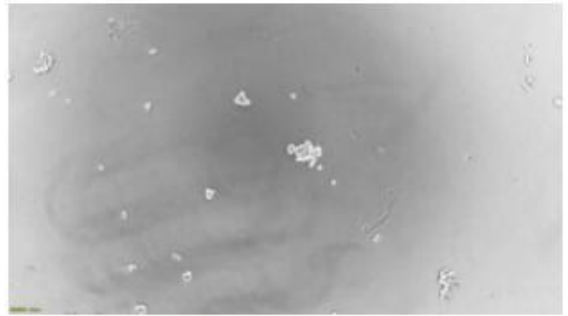
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LDGCGCCRVC  AKQLGELCTE  RDPKDPHKGL  FCHFGSPANR  KIGVCTAKDG
APCIFGGTVY  RSGESFQSSC  KYQCTCLDGA  VGCMP LCSMD  VRLPSPDCPF
PRRVKLPKGC  CEEWVCDEPK  DQTVVGPALA  AYRLEDTFGP  DPTMIRANCL
VQTTEWSACS  KTCGMGISTR  VTNDNASCLR  EKQSRLCMVR  PCEADLEENI
KKGKKCIRTP  KISKPIKFEL  SGCTSMKTYR  AKFCGVCTDG  RCCTPHRTTT
LPVEFKCPDG  EVMKKNMMFI  KTCACHYNCP  GDNDIFESLY  YRKMVGDMA
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[ACTIVITY]

Connective Tissue Growth Factor (CTGF), also known as CCN2 is a matricellular protein of the CCN family of extracellular matrix-associated heparin-binding proteins. CTGF has important roles in many biological processes, including cell adhesion, migration, proliferation, angiogenesis, skeletal development, and tissue wound repair, and is critically involved in fibrotic disease and several forms of cancers. As CTGF has the function of cell adhesion, we measure the activity of recombinant human CTGF by the ability of the immobilized protein to support the adhesion of Balb/3T3 mouse embryonic fibroblast cell. When 5×10^4 cells/well are added to different concentrations of recombinant human CTGF coated plates, cells will adhere after 2 hour incubation at 37 °C. The adhesion of Balb/3T3 after 2 hour incubation at 37 °C observed by inverted microscope was shown in Figure 1. Cell adherent was in a dose dependent manner, the result was shown in Figure 2, the EC50 was 0.6 ug/ml.



A



B

Figure 1. The adhere effect of recombinant human CTGF on Balb/3T3 cells

(A) Balb/3T3 cells were seeded into the well containing CTGF 0.6 ug/ml and incubated for 2 h at 37 °C;

(B) Balb/3T3 cells were seeded into the well without CTGF and incubated for 2 h at 37 °C;

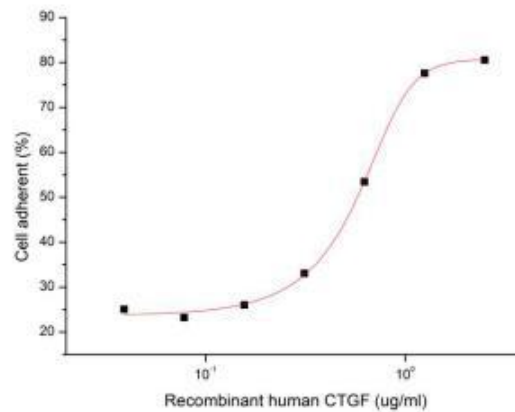


Figure 2. The adhere effect of CTGF on Balb/3T3 cells

[**IDENTIFICATION**]

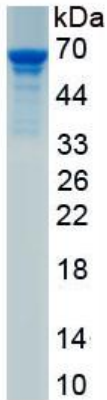


Figure 3. SDS-PAGE

Sample: Active recombinant CTGF, Human

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.