APA010Ra01 100μg
Active Connective Tissue Growth Factor (CTGF)
Organism Species: *Rattus norvegicus (Rat)*
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: Gln25~Ala347
Tags: N-terminal His and GST Tag
Purity: >90%
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: 8.2
Predicted Molecular Mass: 65.4kDa
Accurate Molecular Mass: 68kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

QDCSAQ CQCAAEAAPR CPAGVSLVLD
GCGCCRVCAK QLGELCTERD PCDPHKGLFC DFGSPANRKI GVCTAKDGAP
CVFGGSVYRS GESFQSSCKY QCTCLDGAVG CVPLCSMDVR LPSPDCPFPR
RVKLPGKCCE EWVCDEPKDR TVVGPALAAY RLEDTFGPDP TMMRANCLVQ
TTEWSACSKT CGMGISTRVT NDNTFCRLEK QSRLCMVRPC EADLEENIKK
GKKCIRTPKI AKPVKFELSG CTSVKTYRAK FCGVCTDGRC CTPHRTTTLP
VEFKCPDGEI MKKNMMFIKT CACHYNCPGD NDIFESLYYR KMYGDMA

[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 rat CTGF by the ability of the immobilized protein to support the adhesion of Balb/3T3 mouse embryonic fibroblast cell. When 5 x 104 cells/well are added to different concentrations of recombinat rat CTGF coated plates, cells will adhere after 2 hour incubation at 37 ℃. The adhesion of Balb/3T3 after 2 hour incubation at 37 ℃ 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 1 ug/ml.

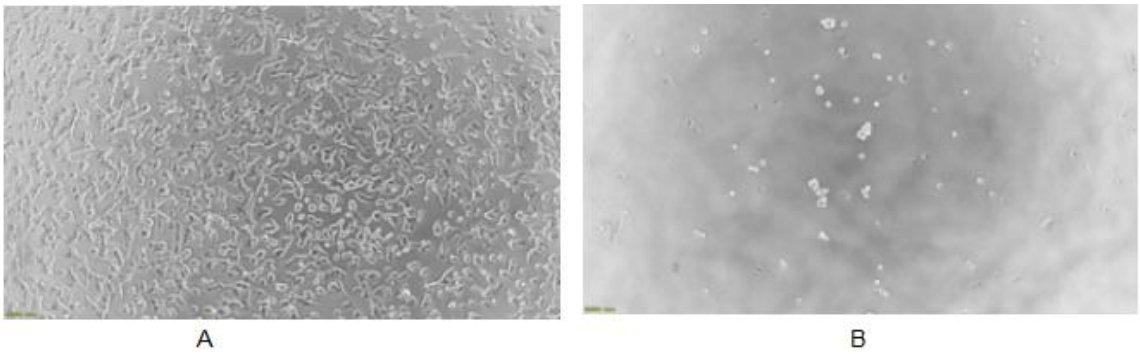

Figure 1.The adhere effect of recombinant rat CTGF on Balb/3T3 cells

(A) Balb/3T3 cells were seeded into the well containting CTGF 1.25 ug/ml and incubated for 2 h at 37 ℃;

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

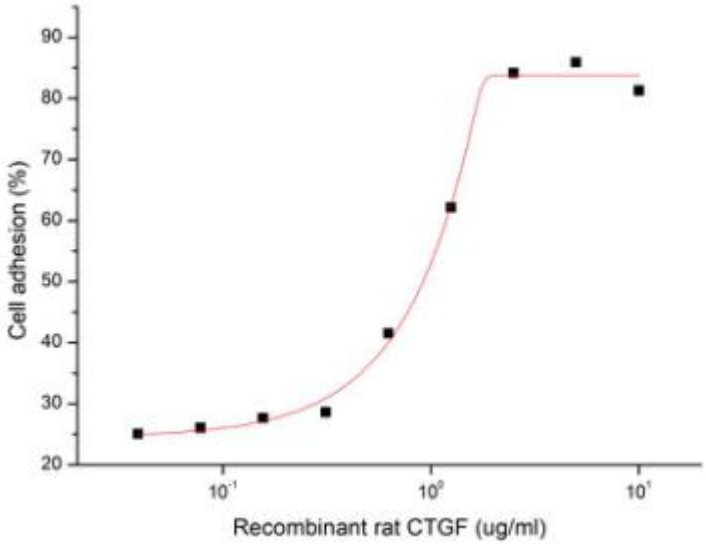

Figure 2. The adhere effect of CTGF on Balb/3T3 cells

[IDENTIFICATION]

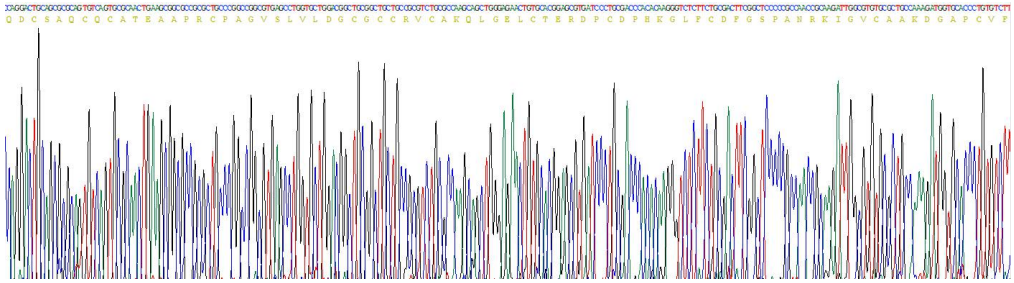

Figure 3. Gene Sequencing (extract)

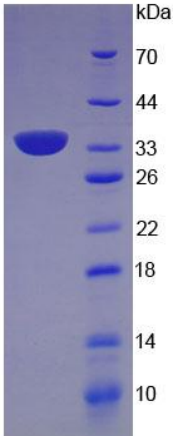

Figure 4. SDS-PAGE

Sample: Active recombinant CTGF, Rat

[IMPORTANT NOTE]

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