

Recombinant Human Connective Tissue Growth Factor, His-tagged

Cat. No. CTGF-30H Lot. No. (See product label)

SPECIFICATION

Product Overview

The Connective Tissue Growth Factor His-Tagged Fusion Protein, produced in *E. coli*, is 38.3 kDa protein containing 323 amino acid residues of the CTGF human and 23 additional amino acid residues – His Tag, Xa - cleavage site (underlined).

Species

Human

Source

E.coli

Description

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.

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Amino Acid Sequence	MGHHHHHHHH HHSSGHIEGR HMRQNCSGPC RCPDEPAPRC PAGVSLVLDG CGCCRVCAKQ LGELCTERDPCDPHKGLFCD FGSPANRKIG VCTAKDGAPC IFGGTVYRSG ESFQSSCKYQ CTCLDGAVGC MPLCSMDVRLPSPDCPFPRR VKLPGKCCEE WVCDEPKDQT VVGPALAAYR LEDTFGPDPT MIRANCLVQT TEWSACSKTCGMGISTRVTN DNASCRLEKQ SRLCMVRPCE ADLEENIKKG KKCIRTPKIS KPIKFELSGC TSMKTYRAKF CGVCTDGRCTPHRTTTLPV EFKCPDGEVM KKNMMFIKTC ACHYNCPGDN DIFESLYYRK MYGDMA.
Specificity	The amino acid sequence of the CTGF is 100% homologous to amino acid sequence of the Connective Tissue Growth Factor without signal sequence.
Purification Method	Three-step procedure using affinity Ni-NTA chromatography and size exclusion Chromatography before and after refolding.
Purity	Purity of Connective Tissue Growth Factor is >95% (SDS-PAGE analyzed).
Formulation	Sterile filtered and lyophilized from 0.5 mg/ml in 0.05M Acetate buffer pH-4.
Solubility	Add 0.2 ml of 0.1M Acetate buffer pH-4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10µg/ml. In higher concentrations the solubility of this antigen is limited.
GENE INFORMATION	
Gene Name	CTGF connective tissue growth factor [Homo sapiens]
Synonyms	CTGF; connective tissue growth factor; CCN2; NOV2; HCS24; IGFBP8; MGC102839;hypertrophic chondrocyte-specific protein 24; insulin-like growth factor-binding protein 8; OTTHUMP00000017213

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Gene ID	1490
mRNA Refseq	NM_001901
Protein Refseq	NP_001892
MIM	121009
UniProt ID	P29279
Chromosome Location	6q23.2
Function	growth factor activity; heparin binding; insulin-like growth factor binding; integrin binding; protein binding

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