



Customer Service: 1-800 786 1236
 Technical Service: 214 387 8105
 Fax: 214 387 0870
Info@fabgennix.com
www.fabgennix.com

New Item New Item

FabGennix Inc.
INTERNATIONAL

Antibodies to Connective Tissue Growth Factor (CTGF)

Connective tissue growth factor (CTGF) antibodies. Catalog # CTGF-101AP, P-CTGF, PC-CTGF.

Accession # P29279 and Alternate Nomenclature: CCN2; NOV2; HCS24; IGFBP8; MGC102839.

Connective tissue growth factor (CTGF) belongs to the CCN family of proteins (1). CTGF is also related to platelet-derived growth factor; it is a cysteine-rich pro-adhesive protein that plays an essential role in cell adhesion, chondrocyte proliferation and differentiation, and in the formation of blood vessels and connective tissue (2). CTGF expression was shown to be induced by TGF-beta and it has been suggested that CTGF mediates several downstream actions of TGF-beta (3). CTGF plays a critical role in Angiotensin II-mediated hypertensive nephropathy. This protein was in fact activated by Angiotensin II via TGF-beta-dependent and -independent Smad3 signaling pathways (4). Expression of CTGF is absent in normal adult skin, it is only during the wound healing response that this protein is overexpressed in the fibroblasts in fibrotic lesions (5). Therefore, this protein is also required for muscle repair and fibrosis.

The overexpression of CTGF in fibrotic lesions has been shown to contribute to the phenotype of systemic sclerosis. Furthermore, variations in this protein are also linked with systemic sclerosis (6). Expression of CTGF protein was also shown to significantly increase when cultured human renal tubular epithelial cells were subjected to a high glucose treatment, and overexpression of CTGF was found in the muscles of patients with muscular dystrophy (7). CTGF is located on human chromosome 6q23.1. It is expressed in skeletal muscle, bone marrow and thymic cells. In human and mouse, CTGF is approximately a 42kDa protein (349 amino acids). In rats, it is a 57.1kDa protein (476 amino acids).

The CTGF antibodies were generated using peptide corresponding to human CTGF protein. CTGF antibodies are affinity purified over immobilized antigen based affinity chromatography, and the purified immunoglobulins are stabilized in antibody stabilization buffer. FabGennix Int. Inc. will provide limited quantities of antigenic blocking protein for competition assays involving CTGF antibodies. Antibodies to CTGF (CTGF-101AP) will label ~57.1kDa protein in Western blot positive control for CTGF (PC-CTGF) and several other tissues. FabGennix Inc. will conjugate this and other antibodies from its catalog to either secondary enzymes (alk-Pase or HRP) or fluorescent probes at a nominal cost upon request. FabGennix also provides custom antibody production services for researchers that are looking for high affinity mono and polyclonal antibodies in various species. We specialize in making application specific antibodies that are useful in IHC, confocal and other applications where native antigen is detected. For a complete listing of all FabGennix antibodies please visit www.Fabgennix.com.

Catalog #	Host Species	Nature	Cross reactivity	Quantity	Volume
CTGF-101AP	Rabbit	Affinity purified CTGF antibodies	R, m, h, others	100 ug	200ul
FITC-CTGF	Rabbit	FITC-conjugated CTGF antibodies	R, m, h, others	100ug	200ul
P-CTGF	n/a	Antigenic blocking peptide for CTGF-101AP	n/a	250 ug	100ul
PC-CTGF	n/a	WB positive control for CTGF	n/a	For 5 app.	150ul

R = rat; M = mouse; H = human; C = chicken; monk = monkey ; * not all variants are labeled equally

Immunogen:

Synthetic peptide corresponding to unique epitope on CTGF. The peptide sequence was selected from C-terminal, amino acids 280-349. These peptides were covalently modified post-synthetically to achieve desired antigenicity.

Concentration:

CTGF-101AP: IgG concentration 0.64-0.72 mg/ml in antibody stabilization buffer.

Applications:

Antibody CTGF-101AP is ideal for WB and ELISA applications, other applications have not been tested. The species cross reactivity for these antibodies have not been examined fully. The dilutions for this antibody is for reference only, investigators are expected to determine the optimal conditions for specific assay. WB: > 1:500; IMM & i.p pull-down assays: n.d.; IHC n.d. ELISA <1:10,000. Application of this antibody in protocols not listed here does not necessarily exclude its use in such procedures.

Reactivity:

This antibody detects a single band of approximately 57.1kDa in PC-CTGF samples.

Protocols:

Standard protocol for various applications (WB; IMM and IHC) of this antibody is provided with the product specification sheet; however, FabGennix Inc. strongly recommends investigators to optimize conditions for use of this antibody in their laboratories.

Form/Storage:

The antiserum is supplied in antibody stabilization buffer. The affinity-purified antibodies are isolated on immobilized antigen-affinity column and supplied as stabilized product. Store at -20°C for long-term storage. FabGennix Inc. does not recommend storage of very dilute antibody solutions unless they are prepared in specially formulated multi use antibody dilution buffer (Cat # DiluOBuffer). Working solutions of antibodies in DiluOBuffer should be filtered through 0.45um filter after every use for long-term storage.

Western Blot of CTGF. The CTGF antibody (Cat # CTGF-101AP) at 1:500 in diluOBuffer was probed with PC-CTGF sample. MW of CTGF is approximately 57.1kDa.

Notes: Briefly centrifuge to collect liquid, heat or boil PC-CTGF tube for 1-2 minutes to dissolve any precipitate before use. This product is "ready-to-use" for electrophoresis. After thawing store at room temperature. Repeated freezing and thawing may result in appearance of higher MW immunoreactive bands.

New Reagents: Now you can recycle your western blots (nitrocellulose, supported membranes and PVDF membranes) by using our StripOBuffer (Cat FGI-1989). Each stripping is guaranteed to give better signal (up to 8 stripping). No strong pungent smell of reducing agents or heating required. Block in 5X diluOBuffer and you are ready for blotting with a new antibody

References:

- Holbourn KP, Acharya KR, Perbal B. The CCN family of proteins: structure-function relationships. Trends Biomed Sci. October 2008; 33(10):461-473.
- Leask A, Abraham DJ. The role of connective tissue growth factor, a multifunctional matricellular protein, in fibroblast biology. Biochem Cell Biol. December 2003; 81(6):355-363.
- Xie S, et al. Regulation of TGF-beta 1-induced connective tissue growth factor expression in airway smooth muscle cells. Am J Physiol Lung Cell Mol Physiol. January 2005; 288(1):L68-L76.
- Yang F, et al. Angiotensin II induces connective tissue growth factor and collagen II expression via transforming growth factor-beta-dependent and -independent Smad pathways: the role of Smad3. Hypertension. October 2009; 54(4):877-884.
- Leask A. Transcriptional profiling of the scleroderma fibroblast reveals a potential role for connective tissue growth factor (CTGF) in pathological fibrosis. Keio J Med. June 2004; 53(2):74-77.
- Fonseca C, et al. A polymorphism in the CTGF promoter region associated with systemic sclerosis. New Eng J Med. 20 September 2007; 357:1210-1220.
- Tang X, et al. Effect of high glucose exposure on connective tissue growth factor expression in cultured human renal tubular epithelial cells and the role of p38MAPK pathway. Nan Fang Yi Ke Da Xue Xue Bao. January 2009; 29(1):50-53.

* For users who may require large amounts of CTGF-101AP, please enquire about bulk material discounts.
 This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.

090408-0020SF100 ge02-rev10.00

FabGennix Inc.
INTERNATIONAL

5850 Town and Country Blvd. Suite 301. Frisco, TX 75034

Customer service: 1800 786 1236; Technical Support: 214 387 8105