

# CTGF (6B13): sc-101586

## BACKGROUND

Connective tissue growth factor (CTGF), also known as hypertrophic chondrocyte-specific gene product 24 or Hcs24, is a member of the CCN family of immediate early proteins, which are involved in cell proliferation, migration and matrix production. CTGF is a cysteine-rich peptide that is secreted by endothelial cells, fibroblasts, smooth muscle cells and myofibroblasts. Its expression is increased in various human and animal fibrotic diseases. Specifically, CTGF has been observed to be strongly upregulated in human proliferative and fibrogenic renal disease. In addition, CTGF is a growth factor for vascular smooth muscle cells (VSMC) and may play a similar role in promoting VSMC growth and migration *in vitro*.

## REFERENCES

1. Fan, W.H., et al. 2000. Connective tissue growth factor (CTGF) stimulates vascular smooth muscle cell growth and migration *in vitro*. *Eur. J. Cell Biol.* 79: 915-923.
2. Hirasaki, S., et al. 2001. Expression of NOV, CYR61 and CTGF genes in human hepatocellular carcinoma. *Hepatol. Res.* 19: 294-305.

## CHROMOSOMAL LOCATION

Genetic locus: CTGF (human) mapping to 6q23.2; Ctgf (mouse) mapping to 10 A4.

## SOURCE

CTGF (6B13) is a mouse monoclonal antibody raised against recombinant CTGF of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CTGF (6B13) is recommended for detection of CTGF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CTGF siRNA (h): sc-39329, CTGF siRNA (m): sc-39330, CTGF shRNA Plasmid (h): sc-39329-SH, CTGF shRNA Plasmid (m): sc-39330-SH, CTGF shRNA (h) Lentiviral Particles: sc-39329-V and CTGF shRNA (m) Lentiviral Particles: sc-39330-V.

Molecular Weight of CTGF: 38 kDa.

Positive Controls: CTGF (m): 293T Lysate: sc-119498, mouse heart extract: sc-2254 or HeLa whole cell lysate: sc-2200.

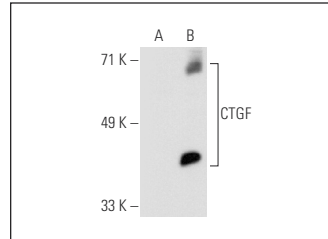
## RESEARCH USE

For research use only, not for use in diagnostic procedures.

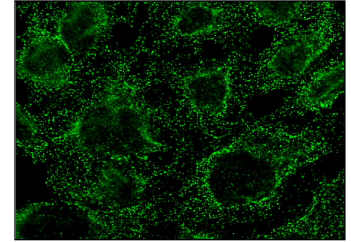
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



CTGF (6B13): sc-101586. Western blot analysis of CTGF expression in non-transfected: sc-117752 (A) and mouse CTGF transfected: sc-119498 (B) 293T whole cell lysates.



CTGF (6B13): sc-101586. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and extracellular localization.

## SELECT PRODUCT CITATIONS

1. Ming-Ju, H., et al. 2011. Hepatitis C virus E2 protein induce reactive oxygen species (ROS)-related fibrogenesis in the HSC-T6 hepatic stellate cell line. *J. Cell. Biochem.* 112: 233-243.
2. Capparelli, C., et al. 2012. CTGF drives autophagy, glycolysis and senescence in cancer-associated fibroblasts via HIF1 activation, metabolically promoting tumor growth. *Cell Cycle* 11: 2272-2284.
3. Garcia, A.E., et al. 2013. Erosive arthritis and hepatic granuloma formation induced by peptidoglycan polysaccharide in rats is aggravated by prasugrel treatment. *PLoS ONE* 8: e69093.
4. Li, X., et al. 2015. Co-activation of PIK3CA and Yap promotes development of hepatocellular and cholangiocellular tumors in mouse and human liver. *Oncotarget* 6: 10102-10115.
5. Xiao, L., et al. 2016. YAP induces cisplatin resistance through activation of autophagy in human ovarian carcinoma cells. *Onco Targets Ther.* 9: 1105-1114.
6. Noritake, K., et al. 2017. Restoration of YAP activation rescues HL-1 cardiomyocytes from apoptotic death by ethanol. *J. Toxicol. Sci.* 42: 545-551.
7. Ou, J., et al. 2017. MiR-375 attenuates injury of cerebral ischemia/reperfusion via targeting CTGF. *Biosci. Rep.* 37: BSR20171242.
8. Wang, S., et al. 2018. Knockdown of NLRC5 inhibits renal fibroblast activation via modulating TGF-β1/Smad signaling pathway. *Eur. J. Pharmacol.* 829: 38-43.
9. Jin, D., et al. 2018. Norcantharidin reverses cisplatin resistance and inhibits the epithelial mesenchymal transition of human non-small lung cancer cells by regulating the YAP pathway. *Oncol. Rep.* 40: 609-620.



See **CTGF (E-5): sc-365970** for CTGF antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.