

CTGF (D-13): sc-34771

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., Pech, M. and Karnovsky, M.J. 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., Koide, N., Ujike, K., Shinji, T. and Tsuji, T. 2001. Expression of nov, Cyr61 and CTGF genes in human hepatocellular carcinoma. Hepatol. Res. 19: 294-305.
3. Ehrchen, J., Heuer, H., Sigmund, R., Schafer, M.K. and Bauer, K. 2001. Expression and regulation of osteopontin and connective tissue growth factor transcripts in rat anterior pituitary. J. Endocrinol. 169: 87-96.
4. Nakanishi, T., Yamaai, T., Asano, M., Nawachi, K., Suzuki, M., Sugimoto, T. and Takigawa, M. 2001. Overexpression of connective tissue growth factor/ hypertrophic chondrocyte-specific gene product 24 decreases bone density in adult mice and induces dwarfism. Biochem. Biophys. Res. Commun. 281: 678-681.
5. Kasaragod, A.B., Lucia, M.S., Cabirac, G., Grotendorst, G.R. and Stenmark, K.R. 2001. Connective tissue growth factor expression in pediatric myofibroblastic tumors. Pediatr. Dev. Pathol. 4: 37-45.
6. Ito, Y., Goldschmeding, R., Bende, R., Claessen, N., Chand, M., Kleij, L., Rabelink, T., Weening, J. and Aten, J. 2001. Kinetics of connective tissue growth factor expression during experimental proliferative glomerulonephritis. J. Am. Soc. Nephrol. 12: 472-484.

CHROMOSOMAL LOCATION

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

SOURCE

CTGF (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CTGF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34771 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CTGF (D-13) 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), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CTGF (D-13) is also recommended for detection of CTGF in additional species, including bovine, porcine and avian.

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: HeLa whole cell lysate: sc-2200 or A-10 cell lysate: sc-3806 or mouse heart extract: sc-2254.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **CTGF (E-5): sc-365970** or **CTGF (B-6): sc-373936**, our highly recommended monoclonal alternatives to CTGF (D-13). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CTGF (E-5): sc-365970**.