SANTA CRUZ BIOTECHNOLOGY, INC.

CTGF (L-20): sc-14939

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 was 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 it may play a similar role in promoting VSMC growth and migration *in vitro*.

CHROMOSOMAL LOCATION

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

SOURCE

CTGF (L-20) 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 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14939 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CTGF (L-20) 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).

CTGF (L-20) is also recommended for detection of CTGF in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CTGF siRNA (h): sc-39329, CTGF siRNA (m): sc-39330, CTGF siRNA (r): sc-270415, CTGF shRNA Plasmid (h): sc-39329-SH, CTGF shRNA Plasmid (m): sc-39330-SH, CTGF shRNA Plasmid (r): sc-270415-SH, CTGF shRNA (h) Lentiviral Particles: sc-39329-V, CTGF shRNA (m) Lentiviral Particles: sc-39330-V and CTGF shRNA (r) Lentiviral Particles: sc-270415-V.

Molecular Weight of CTGF: 38 kDa.

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

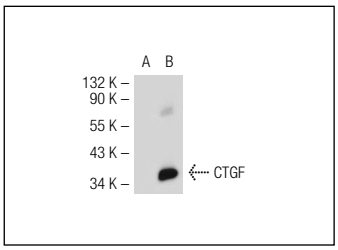
STORAGE

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

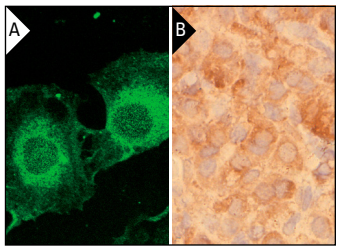
RESEARCH USE

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

DATA



CTGF (L-20): sc-14939. Western blot analysis of CTGF expression in non-transfected: sc-117752 (**A**) and mouse CTGF transfected: sc-119498 (**B**) 293T whole cell lysates.



CTGF (L-20): sc-14939. Immunofluorescence staining of methanol-fixed A-10 cells (**A**) and immunoperoxidase staining of formalin fixed, paraffin-embedded mouse ovary (**B**) showing cytoplasmic and extracellular localization.

SELECT PRODUCT CITATIONS

1. Ott, C., et al. 2003. Modulation of the expression of connective tissue growth factor by alterations of the cytoskeleton. J. Biol. Chem. 278: 44305-44311.
2. Toblli, J.E., et al. 2011. Antifibrotic effects of pioglitazone at low doses on the diabetic rat kidney are associated with the improvement of markers of cell turnover, tubular and endothelial integrity, and angiogenesis. Kidney Blood Press. Res. 34: 20-33.
3. Muehlich, S., et al. 2011. The transcriptional coactivators megakaryoblastic leukemia 1/2 mediate the effects of loss of the tumor suppressor deleted in liver cancer 1. Oncogene 31: 3913-3923.
4. Lappano, R., et al. 2012. MIBE acts as antagonist ligand of both estrogen receptor α and GPER in breast cancer cells. Breast Cancer Res. 14: R12.
5. Lappano, R., et al. 2012. Two novel GPER agonists induce gene expression changes and growth effects in cancer cells. Curr. Cancer Drug Targets 12: 531-542.
6. Zhao, B., et al. 2012. Cell detachment activates the Hippo pathway via cytoskeleton reorganization to induce anoikis. Genes Dev. 26: 54-68.
7. De Marco, P., et al. 2012. Insulin-like growth factor-I regulates GPER expression and function in cancer cells. Oncogene 32: 678-688.
8. Breyer, J., et al. 2012. Inhibition of Rho kinases increases directional motility of microvascular endothelial cells. Biochem. Pharmacol. 83: 616-626.
9. Pupo, M., et al. 2012. Bisphenol a induces gene expression changes and proliferative effects through GPER in breast cancer cells and cancer-associated fibroblasts. Environ. Health Perspect. 120: 1177-1182.

MONOS Satisfaction Guaranteed

Try **CTGF (E-5): sc-365970** or **CTGF (B-6): sc-373936**, our highly recommended monoclonal alternatives to CTGF (L-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **CTGF (E-5): sc-365970**.