

CTRP6 (D-18): sc-86393

BACKGROUND

Members of the CTRP (complement C1q tumor necrosis factor-related protein) family are structurally related, although functionally diverse. CTRPs share TNF α -like globular domains and N-terminal glycine-X-Y repeats and also tend to form trimers that have the ability to congregate into higher order structures. Functions of this protein family range from immune homeostasis to structural and extracellular matrix-related roles. CTRP6 (complement C1q tumor necrosis factor-related protein 6) is a 259 amino acid secreted glycoprotein consisting of an N-terminal signal peptide sequence followed by a collagen-like domain and a C-terminal globular domain. Predominantly expressed in eye and placenta, CTRP6 is also upregulated in obese mice. Along with CTRP1, CTRP2, CTRP3 and CTRP5, CTRP6 circulates in the blood and is thought to function as an endocrine hormone. There are three isoforms of CTRP6 that are produced as a result of alternative splicing events.

REFERENCES

- Lasser, G., Guchhait, P., Ellsworth, J.L., Sheppard, P., Lewis, K., Bishop, P., Cruz, M.A., Lopez, J.A. and Fruebis, J. 2006. C1qTNF-related protein-1 (CTRP-1): a vascular wall protein that inhibits collagen-induced platelet aggregation by blocking VWF binding to collagen. *Blood* 107: 423-430.
- Kim, K.Y., Kim, H.Y., Kim, J.H., Lee, C.H., Kim, D.H., Lee, Y.H., Han, S.H., Lim, J.S., Cho, D.H., Lee, M.S., Yoon, S., Kim, K.I., Yoon, D.Y. and Yang, Y. 2006. Tumor necrosis factor- α and interleukin-1 β increases CTRP1 expression in adipose tissue. *FEBS Lett.* 580: 3953-3960.
- Akiyama, H., Furukawa, S., Wakisaka, S. and Maeda, T. 2007. CTRP3/cart-ducin promotes proliferation and migration of endothelial cells. *Mol. Cell. Biochem.* 304: 243-248.
- Wong, G.W., Krawczyk, S.A., Kitidis-Mitrokostas, C., Revett, T., Gimeno, R. and Lodish, H.F. 2008. Molecular, biochemical and functional characterizations of C1q/TNF family members: adipose-tissue-selective expression patterns, regulation by PPAR- γ agonist, cysteine-mediated oligomerizations, combinatorial associations and metabolic functions. *Biochem. J.* 416: 161-177.
- Jeon, J.H., Kim, K.Y., Kim, J.H., Baek, A., Cho, H., Lee, Y.H., Kim, J.W., Kim, D., Han, S.H., Lim, J.S., Kim, K.I., Yoon do, Y., Kim, S.H., Oh, G.T., Kim, E. and Yang, Y. 2008. A novel adipokine CTRP1 stimulates aldosterone production. *FASEB J.* 22: 1502-1511.
- Wong, G.W., Krawczyk, S.A., Kitidis-Mitrokostas, C., Ge, G., Spooner, E., Hug, C., Gimeno, R. and Lodish, H.F. 2008. Identification and characterization of CTRP9, a novel secreted glycoprotein, from adipose tissue that reduces serum glucose in mice and forms heterotrimers with adiponectin. *FASEB J.* 23: 241-58
- Wöfling, B., Buechler, C., Weigert, J., Neumeier, M., Aslanidis, C., Schöelmerich, J. and Schäffler, A. 2008. Effects of the new C1q/TNF-related protein (CTRP-3) "cartonectin" on the adipocytic secretion of adipokines. *Obesity* 16: 1481-1486.

CHROMOSOMAL LOCATION

Genetic locus: C1QTNF6 (human) mapping to 22q12.3.

SOURCE

CTRP6 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CTRP6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-86393 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CTRP6 (D-18) is recommended for detection of CTRP6 of 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); non cross-reactive with other CTRP family members.

Suitable for use as control antibody for CTRP6 siRNA (h): sc-77055, CTRP6 shRNA Plasmid (h): sc-77055-SH and CTRP6 shRNA (h) Lentiviral Particles: sc-77055-V.

Molecular Weight of CTRP6: 29 kDa.

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.