

Cardiotrophin-1 (h2): 293T Lysate: sc-116959

BACKGROUND

Cardiotrophin-1 (CT-1) is a member of the IL-6 family of cytokines, which signal through gp130 receptor complexes. gp130 complexes with several different receptor subunits to transmit signals from Cardiotrophin-1, IL-6, LIF, OSM, CNTF and IL-11. Cardiotrophin-1 binds to and activates the leukemia inhibitory factor (LIF) receptor/gp130 receptor complex and has been shown to induce hypertrophy in cardiac myocytes *in vitro*. Cardiotrophin-1, a secreted protein expressed at high levels in myocardium during cardiogenesis, has been shown to promote proliferation and survival of embryonic cardiomyocytes, suggesting a role for Cardiotrophin-1 in the activation of gp130 during cardiac development. Cardiotrophin-1 is highly expressed in heart, prostate, ovary and skeletal muscle. Lower levels of expression are seen in lung, kidney, pancreas, thymus, testis and small intestine.

REFERENCES

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3. Ishikawa, M., Saito, Y., Miyamoto, Y., Kuwahara, K., Ogawa, E., Nakagawa, O., Harada, M., Masuda, I. and Nakao, K. 1996. cDNA cloning of rat Cardiotrophin-1 (CT-1): augmented expression of CT-1 gene in ventricle of genetically hypertensive rats. *Biochem. Biophys. Res. Commun.* 219: 377-381.
4. Pennica, D., Swanson, T.A., Shaw, K.J., Kuang, W.J., Gray, C.L., Beatty, B.G. and Wood, W.I. 1996. Human Cardiotrophin-1: protein and gene structure, biological and binding activities, and chromosomal localization. *Cytokine* 8: 183-189.
5. Wollert, K.C. and Chien, K.R. 1997. Cardiotrophin-1 and the role of gp130-dependent signaling pathways in cardiac growth and development. *J. Mol. Med.* 75: 492-501.
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CHROMOSOMAL LOCATION

Genetic locus: CTF1 (human) mapping to 16p11.2.

PRODUCT

Cardiotrophin-1 (h2): 293T Lysate represents a lysate of human Cardiotrophin-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Cardiotrophin-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Cardiotrophin-1 antibodies. Recommended use: 10-20 µl per lane.

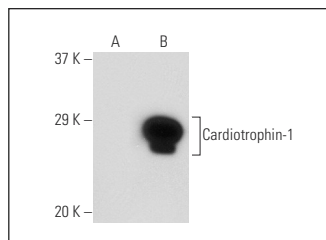
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Cardiotrophin-1 (AN-B3): sc-9991 is recommended as a positive control antibody for Western Blot analysis of enhanced human Cardiotrophin-1 expression in Cardiotrophin-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

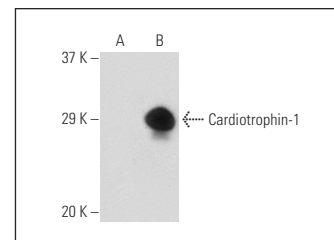
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Cardiotrophin-1 (AN-B3): sc-9991. Western blot analysis of Cardiotrophin-1 expression in non-transfected: sc-117752 (A) and human Cardiotrophin-1 transfected: sc-116959 (B) 293T whole cell lysates.



Cardiotrophin-1 (4916): sc-73763. Western blot analysis of Cardiotrophin-1 expression in non-transfected: sc-117752 (A) and human Cardiotrophin-1 transfected: sc-116959 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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