Cardiotrophin-1 (AN-B3): sc-9991

**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.

**CHROMOSOMAL LOCATION**

Genetic locus: CTF1 (human) mapping to 16p11.2; Ctf1 (mouse) mapping to 7 F3.

**SOURCE**

Cardiotrophin-1 (AN-B3) is a mouse monoclonal antibody raised against full length Cardiotrophin-1 (CT-1) of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cardiotrophin-1 (AN-B3) is available conjugated to agarose (sc-9991 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-9991 HRP), 200 µg/ml, for WB, HOP and ELISA; to either phycoerythrin (sc-9991 PE), fluorescein (sc-9991 FITC), Alexa Fluor® 488 (sc-9991 AF488), Alexa Fluor® 546 (sc-9991 AF546), Alexa Fluor® 594 (sc-9991 AF594) or Alexa Fluor® 647 (sc-9991 AF647), 200 µg/ml, for WB (RGB), IF, HOP and FCM; and to either Alexa Fluor® 680 (sc-9991 AF680) or Alexa Fluor® 790 (sc-9991 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Cardiotrophin-1 (AN-B3) is recommended for detection of Cardiotrophin-1 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 lysates)], 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).

Suitable for use as control antibody for Cardiotrophin-1 siRNA (h): sc-39327, Cardiotrophin-1 siRNA (m): sc-39328, Cardiotrophin-1 shRNA Plasmid (h): sc-39327-SH, Cardiotrophin-1 shRNA Plasmid (m): sc-39328-SH, Cardiotrophin-1 shRNA (h) Lentiviral Particles: sc-39327-V and Cardiotrophin-1 shRNA (m) Lentiviral Particles: sc-39328-V.

Molecular Weight of Cardiotrophin-1: 21 kDa.

Positive Controls: Cardiotrophin-1 (h): 293T Lysate: sc-112583 or Hep G2 cell lysate: sc-2227.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™
2) Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
3) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
4) Immunofluorescence: use m-IgG HRP-FITC: sc-516140 or m-IgG HRP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

**SELECT PRODUCT CITATIONS**


**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 for detailed protocols and support products.