

# CTRP4 (C-4): sc-514719

## BACKGROUND

Members of the CTRP (complement C1q tumor necrosis factor-related protein) family are structurally related, although functionally diverse. CTRPs share TNF  $\alpha$ -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. CTRP4, also known as C1QTNF4 (C1q and tumor necrosis factor related protein 4) or ZACRP4, is a 329 amino acid secreted protein that contains two C1q domains and may play a role in immune homeostasis and various other events throughout the cell. The gene encoding CTRP4 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

1. Polyak, K., et al. 1997. A model for p53-induced apoptosis. *Nature* 389: 300-305.
2. Katoh, M. and Katoh, M. 2004. Identification and characterization of human TP53I5 and mouse Tp53i5 genes in silico. *Int. J. Oncol.* 25: 225-230.
3. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 51-61.
4. Loussouarn, G., et al. 2006. KCNQ1 K<sup>+</sup> channel-mediated cardiac channelopathies. *Methods Mol. Biol.* 337: 167-183.
5. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.
6. Zehelein, J., et al. 2006. Skipping of Exon 1 in the KCNQ1 gene causes Jervell and Lange-Nielsen syndrome. *J. Biol. Chem.* 281: 35397-35403.

## CHROMOSOMAL LOCATION

Genetic locus: C1QTNF4 (human) mapping to 11p11.2; C1qtnf4 (mouse) mapping to 2 E1.

## SOURCE

CTRP4 (C-4) is a mouse monoclonal antibody raised against amino acids 35-169 mapping within an internal region of CTRP4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CTRP4 (C-4) is available conjugated to agarose (sc-514719 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514719 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514719 PE), fluorescein (sc-514719 FITC), Alexa Fluor® 488 (sc-514719 AF488), Alexa Fluor® 546 (sc-514719 AF546), Alexa Fluor® 594 (sc-514719 AF594) or Alexa Fluor® 647 (sc-514719 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514719 AF680) or Alexa Fluor® 790 (sc-514719 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CTRP4 (C-4) is recommended for detection of CTRP4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 CTRP4 siRNA (h): sc-77051, CTRP4 siRNA (m): sc-77052, CTRP4 shRNA Plasmid (h): sc-77051-SH, CTRP4 shRNA Plasmid (m): sc-77052-SH, CTRP4 shRNA (h) Lentiviral Particles: sc-77051-V and CTRP4 shRNA (m) Lentiviral Particles: sc-77052-V.

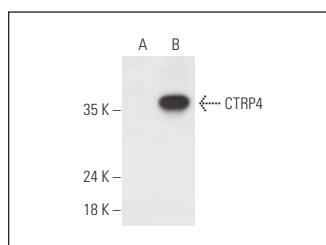
Molecular Weight of CTRP4: 35 kDa.

Positive Controls: CTRP4 (m2): 293 Lysate: sc-178458.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



CTRP4 (C-4): sc-514719. Western blot analysis of CTRP4 expression in non-transfected: sc-110760 (A) and mouse CTRP4 transfected: sc-178458 (B) 293 whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.