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CTRP4 Antibody

Catalog # ASC10338

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9BXJ3
Other Accession	AAH35628, 23243285
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	35256
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CTRP4 antibody can be used for the detection of CTRP4 by Western blot at 1 - 4 □g/mL. Antibody can also be used for immunohistochemistry starting at 10 □g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID	114900
Other Names	CTRP4 Antibody: CTRP4, ZACRP4, CTRP4, Complement C1q tumor necrosis factor-related protein 4, C1q and tumor necrosis factor related protein 4
Target/Specificity	C1QTNF4; These proteins are often highly modified post-translationally and migrate in SDS-PAGE at positions other than their predicted size.
Reconstitution & Storage	CTRP4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CTRP4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	C1QTNF4
Synonyms	CTRP4
Function	May be involved in the regulation of the inflammatory network. Its role as pro- or anti-inflammatory seems to be context dependent (PubMed:21658842, PubMed:27086950). Seems to have some role in regulating food intake and energy balance when administered in the brain. This effect is sustained over a two-day period, and it is accompanied by decreased expression of orexigenic neuropeptides in the hypothalamus 3

hours post-injection (By similarity).

Cellular Location Secreted.

Tissue Location Widely expressed at low levels (PubMed:21658842). Highest levels in adipocyte tissue and brain (PubMed:24366864)

Background

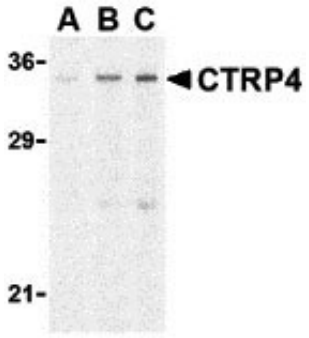
CTRP4 Antibody: Adipose tissue of an organism plays a major role in regulating physiologic and pathologic processes such as metabolism and immunity by producing and secreting a variety of bioactive molecules termed adipokines. One highly conserved family of adipokines is adiponectin/ACRP30 and its structural and functional paralogs, the C1q/tumor necrosis factor-alpha-related proteins (CTRPs) 1-7. Unlike adiponectin, which is expressed exclusively by differentiated adipocytes, the CTRPs are expressed in a wide variety of tissues. These proteins are thought to act mainly on liver and muscle tissue to control glucose and lipid metabolism. An analysis of the crystal structure of adiponectin revealed a structural and evolutionary link between TNF and C1q-containing proteins, suggesting that these proteins arose from a common ancestral innate immunity gene. Multiple isoforms of mouse CTRP4 have been reported.

References

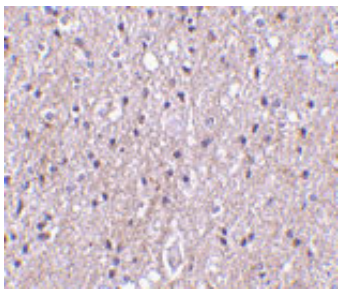
Fantuzzi G. Adipose tissue, adipokines, and inflammation. J. Allergy Clin. Immunol. 2005; 115:911-9.

Tsao T-S, Lodish HF, and Fruebis J. ACRP30, a new hormone controlling fat and glucose metabolism. Euro. J. Pharmacol. 2002; 440:213-21.
Wong GW, Wang J, Hug C, et al. A family of Acrp30/ adiponectin structural and functional paralogs. Proc. Natl. Acad. Sci. USA 2004; 101:10302-7.
Shapiro L and Scherer PE. The crystal structure of a complement-1q family protein suggests an evolutionary link to tumor necrosis factor. Curr. Biol. 1998; 8:335-8.

Images

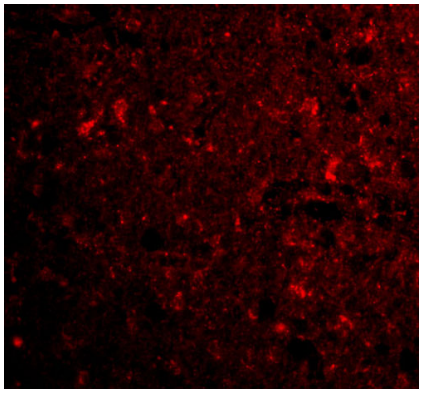


Western blot analysis of CTRP4 in rat brain cell lysate with CTRP4 antibody at (A) 1, (B) 2, and (C) 4 µg/mL.



Immunohistochemistry of CTRP4 in human brain tissue with CTRP4 antibody at 10 µg/mL.

Immunofluorescence of CTRP4 in human brain tissue with CTRP4 antibody at 20 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.