



Anti-Adiponectin/ CTRPs 1-7 Sampler Set

CATALOG No: 54293

APP

BACKGROUND:

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 (reviewed in 1). One highly conserved family of adipokines is adiponectin/ACRP30 and its structural and functional paralogs, the C1q/tumor necrosis factor- α -related proteins (CTRPs) 1-7 (2). Unlike the CTRPs, which are expressed in a wide variety of tissues, adiponectin is reported to be expressed exclusively by differentiated adipocytes (3). These proteins are thought to act mainly on liver and muscle tissue to control glucose and lipid metabolism. Adiponectin is present in high levels in normal human plasma, but is reduced in obese subjects and often in those with increased insulin resistance and type 2 diabetes, suggesting that adiponectin may be a useful pharmacological target in various metabolic diseases (4). 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 (5).

SAMPLER CONTENTS:

Anti-Adiponectin (CT), (25 μ g).
 Anti-CTRP1 (NT), (25 μ g).
 Anti-CTRP2 (NT), (25 μ g).
 Anti-CTRP3 (IN), (25 μ g).
 Anti-CTRP4 (CT), (25 μ g).
 Anti-CTRP5 (NT), (25 μ g).
 Anti-CTRP6 (CT), (25 μ g).
 Anti-CTRP7 (CT), (25 μ g).

SOURCE AND REACTIVITY:

Rabbit polyclonal antibodies were raised against peptide sequences corresponding to each of the target proteins.

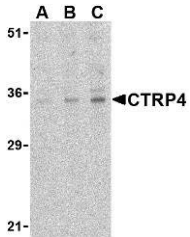
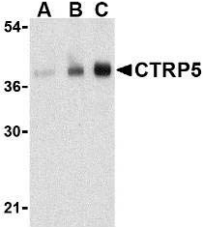
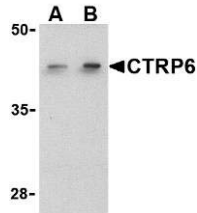
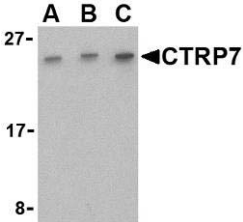
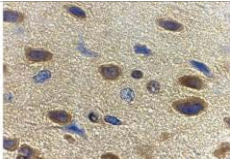
LICATION:

The following concentration ranges are recommended starting points for this product.

WB: 1- 2 μ g/ml

IHC

	<p>Western blot analysis of adiponectin in HL60 cell lysate with anti-adiponectin (3551) at (A) 0.5, (B) 1, and (C) 2 μg/ml.</p>
	<p>Western blot analysis of CTRP1 in human kidney cell lysate with anti-CTRP1 (3557) at (A) 1 and (B) 2 μg/ml.</p>
	<p>Western blot analysis of CTRP2 in Caco-2 cell lysate with anti-CTRP2 (3561) at 1 μg/ml in either the (A) absence or (B) presence of blocking peptide.</p>
	<p>Western blot analysis of CTRP3 in mouse heart cell lysate with anti-CTRP3 (3565) at 1 μg/ml in the (A) absence and (B) presence of blocking peptide.</p>

	<p>Western blot analysis of CTRP4 in rat brain cell lysate with anti-CTRP4 at (A) 1, (B) 2, and (C) 4 µg/ml.</p>
	<p>Western blot analysis of CTRP5 in human brain cell lysate with anti-CTRP5 at (A) 1, (B) 2, and (C) 4 µg/ml.</p>
	<p>Western blot analysis of CTRP6 in HeLa cell lysate with anti-CTRP6 at (A) 1 and (B) 2 µg/ml.</p>
	<p>Western blot analysis of CTRP7 in 293 cell lysate with anti-CTRP (3579) at (A) 0.5, (B) 1, and (C) 2 µg/ml.</p>
	<p>Immunohistochemical staining of rat brain using anti-adiponectin (3551) at 10µg/ml.</p>

This product is for in vitro research purposes only.

RELATED PRODUCTS:

Positive Control Lysates:

Mouse Heart Tissue Lysate, **Catalog No. 29511**

HeLa Whole Lysate, **Catalog No. 29517**

STORAGE:

The antibodies are supplied as affinity chromatography purified IgG, in 1X PBS containing 0.02% Sodium Azide. Store at 2-8 °C for up to 1 year. Avoid repeated freeze thaw cycles.

REFERENCES:

1. Fantuzzi, G. et al. *J. Allergy Clin. Immunol.* **115**, 911 (2005).
2. Tsao, T.S. et al. *Euro. J. Pharmacol.* **440**, 213 (2002).
3. Wong, GW. et al. *Proc. Natl. Acad. Sci. USA* **101**, 10302 (2004).
4. Lihn, AS. et al. *Obes. Rev.* **6**, 13 (2005).
5. Shapiro, L. et al. *Curr. Biol.* **8**, 335 (1998).

WESTERN BLOT PROTOCOL:

- 1.) Load 20-25 µg of whole cell lysate per lane in an SDS-PAGE mini gel.
- 2.) Run at 20 mA per gel until the dye front is close to the bottom.
- 3.) Transfer the proteins to a nitrocellulose membrane at 250 mA in transfer buffer for 1-4 hr, depending on the size of the target protein.
- 4.) Incubate the blot with blocking buffer (5% non-fat dry milk in TBS) overnight at 4°C or 2 hr at room temperature (RT).
- 5.) Incubate the blot with primary antibody (diluted 1:250 to 1:1000 in blocking buffer) for 1 hr in blocking buffer at RT.
- 6.) Wash the blot 3 x 10 min in washing buffer (TBS containing 0.1% Tween 20) with shaking.
- 7.) Incubate blot with anti-rabbit IgG-HRP conjugate (diluted 1:10,000 -1:2,000 in blocking buffer) for 1 hr in blocking buffer at RT.
- 8.) Wash 3 x 10 min in washing buffer with shaking.
- 9.) Drain washing buffer, add ECL solution and develop for 1 min.
- 10.) Expose to X-ray film for 1 to 30 min.

MATERIALS NEEDED:

- Nitrocellulose membrane
- Non-fat dry milk
- Tween-20
- Antibody detection kit

TBS:

- 125 mM NaCl
- 25 mM Tris pH 8.0
- 0.1% Tween 20

SDS/Running Buffer:

- 25 mM Tris
- 192 mM Glycine
- 0.1% SDS

Transfer Buffer:

- 20 mM Tris
- 150 mM Glycine
- 20% methanol
- 0.038% SDS