

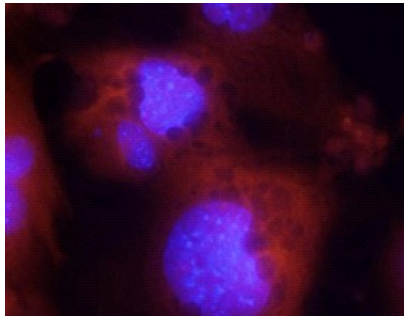
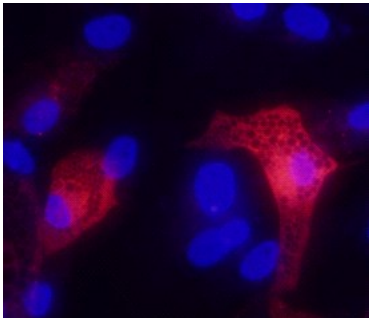
DESCRIPTION	
Species Reactivity	Mouse
Specificity	Detects mouse Adiponectin/Acrp30 in direct ELISAs and Western blots. In direct ELISAs, approximately 50% cross-reactivity with recombinant rat Adiponectin is observed and approximately 30% cross-reactivity with recombinant human Adiponectin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Adiponectin/Acrp30 (R&D Systems, Catalog # 5095-AC) Glu18-Asn247 Accession # Q60994
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Adiponectin/Acrp30 (Catalog # 5095-AC)
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Immunocytochemistry</p>  <p>Adiponectin/Acrp30 in ST-2 mouse bone marrow-derived stromal cell line differentiated to adipocytes. Adiponectin/Acrp30 was detected in immersion fixed ST-2 mouse bone marrow-derived stromal cell line differentiated to adipocytes using Goat Anti-Mouse Adiponectin/Acrp30 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1119) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>	<p>Immunocytochemistry</p>  <p>Adiponectin/Acrp30 in human mesenchymal stem cells differentiated to adipocytes. Adiponectin/Acrp30 was detected in immersion fixed human mesenchymal stem cells differentiated to adipocytes using Goat Anti-Mouse Adiponectin/Acrp30 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1119) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
---	--

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Adiponectin, also known as Acrp30, is an adipocyte-derived protein with wide ranging paracrine and endocrine effects on metabolism and inflammation. It promotes adipocyte differentiation, fatty acid catabolism, and insulin sensitivity, and is negatively correlated with obesity, type 2 diabetes, and atherogenesis. In this context, adiponectin is an anti-inflammatory agent, but it exerts pro-inflammatory effects in nonmetabolic disorders such as rheumatoid arthritis and inflammatory bowel disease (1-3). Adiponectin interacts with the receptors AdipoR1 and AdipoR2, calreticulin, and Cadherin-13/T-Cadherin, as well as with several growth factors (4-7). Mature mouse adiponectin consists of a 66 amino acid (aa) N-terminal collagenous region and a 137 aa C-terminal C1q-like globular domain which can be cleaved by a leukocyte-derived elastase (8-10). Mature mouse adiponectin shares 83% and 91% amino acid (aa) sequence identity with human and rat adiponectin, respectively. Adiponectin associates into trimers that may assemble into medium molecular weight (MMW) hexamers and then into >300 kDa high molecular weight (HMW) oligomers (11-13). The glycosylation of four hydroxylated lysine residues in the collagenous domain is required for the intracellular formation of HMW complexes (14). The various multimeric forms of adiponectin exhibit distinct tissue specific and gender specific profiles and activities (13, 15).

References:

1. Lara-Castro, C. *et al.* (2007) *Curr. Opin. Lipidol.* **18**:263.
2. Tilg, H. and A.R. Moschen (2006) *Nat. Rev. Immunol.* **6**:772.
3. Fantuzzi, G. (2008) *J. Allergy Clin. Immunol.* **121**:326.
4. Yamauchi, T. *et al.* (2007) *Nat. Med.* **13**:332.
5. Takemura, Y. *et al.* (2007) *J. Clin. Invest.* **117**:375.
6. Hug, C. *et al.* (2004) *Proc. Natl. Acad. Sci. USA* **101**:10308.
7. Wang, Y. *et al.* (2005) *J. Biol. Chem.* **280**:18341.
8. Scherer, P.E. *et al.* (1995) *J. Biol. Chem.* **270**:26746.
9. Hu, E. *et al.* (1996) *J. Biol. Chem.* **271**:10697.
10. Waki, H. *et al.* (2005) *Endocrinology* **146**:790.
11. Waki, H. *et al.* (2003) *J. Biol. Chem.* **278**:40352.
12. Tsao, T.S. *et al.* (2003) *J. Biol. Chem.* **278**:50810.
13. Wang, Y. *et al.* (2008) *Biochem. J.* **409**:623.
14. Wang, H. *et al.* (2006) *J. Biol. Chem.* **281**:16391.
15. Pajvani, U.B. *et al.* (2003) *J. Biol. Chem.* **278**:9073.