Human Adiponectin/Acrp30 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1065

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Adiponectin/Acrp30 in direct ELISAs and Western blots. In direct ELISAs, less than 30% cross-reactivity with recombinant mouse Adiponectin is observed and less than 15% cross-reactivity with recombinant rat Adiponectin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Adiponectin/Acrp30 Glu19-Asn244 Accession # Q15848
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 either lyophilized or as a 0.2 μm filtered solution in PBS.

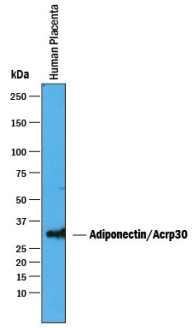
APPLICATIONS

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	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

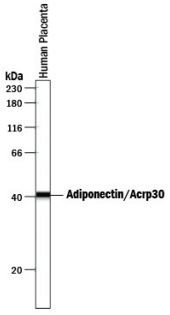
DATA

Western Blot



Detection of Human Adiponectin/Acrp30 by Western Blot. Western blot shows lysates of human placenta tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Adiponectin/Acrp30 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1065) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Adiponectin/Acrp30 at approximately 30-32 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Adiponectin/Acrp30 by Simple Western™. Simple Western lane view shows lysates of human placenta tissue, loaded at 0.2 mg/mL. A specific band was detected for Adiponectin/Acrp30 at approximately 41 kDa (as indicated) using 10 µg/mL of Goat Anti-Human Adiponectin/Acrp30 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1065) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 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.

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BACKGROUND

Adiponectin, also known as Acrp30, is an adipocyte-derived protein with wide ranging paracrine and endocrine effects on metabolism and inflammation. It is induced during adipocyte differentiation, and its secretion is stimulated by insulin. 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 human Adiponectin consists of a 60 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 (8-9). Mature human Adiponectin shares 83% and 85% amino acid (aa) sequence identity with mouse 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 (10-12). The glycosylation of four hydroxylated lysine residues in the collagenous domain is required for the intracellular formation of HMW complexes (13). The various multimeric forms of Adiponectin exhibit distinct tissue specific and gender specific profiles and activities (12, 14).

References:

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