

Human Adiponectin / Acrp30 Protein (His Tag)

Catalog Number: 10772-H08B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

ACDC; ACRP30; Adiponectin; ADIPQTL1; ADPN; APM-1; APM1; GBP28

Protein Construction:

A DNA sequence encoding the human ADIPOQ (NP_001171271.1) (Met1-Asn244) was expressed with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 19

Molecular Mass:

The recombinant human ADIPOQ consists of 237 amino acids and predicts a molecular mass of 26 kDa.

Formulation:

Lyophilized from sterile 20 mM Tris, 150 mM NaCl, pH 8.0, 10 % glycerol.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

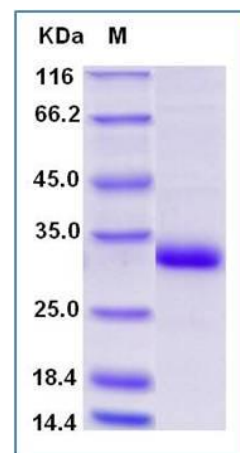
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Adiponectin (ADIPOQ), or 3 kDa adipocyte complement-related protein (Acrp3) is a protein secreted by adipose tissue, which acts to reduce insulin resistance and atherogenic damage, but it also exerts actions in other tissues. Adiponectin mediates its actions in the periphery mainly via two receptors, AdipoR1 and AdipoR2. Adiponectin influences gonadotropin release, normal pregnancy, and assisted reproduction outcomes. Adiponectin, a beneficial adipokine, represents a major link between obesity and reproduction. Higher levels of adiponectin are associated with improved menstrual function and better outcomes in assisted reproductive cycles. Unlike other adipocytokines produced by adipose tissue, adiponectin appears to have anti-inflammatory, anti-diabetic, and anti-atherogenic properties. Several clinical studies demonstrate the inverse relationship between plasma adiponectin levels and several inflammatory markers including C-reactive protein. Adiponectin attenuates inflammatory responses to multiple stimuli by modulating signaling pathways in a variety of cell types. The anti-inflammatory properties of adiponectin may be a major component of its beneficial effects on cardiovascular and metabolic disorders including atherosclerosis and insulin resistance. Additionally, it is an important factor in chronic liver diseases and chronic kidney diseases. Some cancer cell types express adiponectin receptors. Thus Adiponectin may act on tumour cells directly by binding and activating adiponectin receptors and downstream signalling pathways.

References

1. Cui J, *et al.* (2011) The role of adiponectin in metabolic and vascular disease: a review. *Clin Nephrol.* 75(1): 26-33.
2. Michalakis KG, *et al.* (2010) The role of adiponectin in reproduction: from polycystic ovary syndrome to assisted reproduction. *Fertil Steril.* 94(6): 1949-57.
3. Dez JJ, *et al.* (2010) The role of the novel adipocyte-derived protein adiponectin in human disease: an update. *Mini Rev Med Chem.* 10(9): 856-69.

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