Mouse Adiponectin / Acrp30 / ADIPOQ Protein (His Tag)

Catalog Number: 50636-M08H

General Information

Gene Name Synonym:

30kDa; Acdc; Acrp30; Ad; adipo; apM1; APN; GBP28

Protein Construction:

A DNA sequence encoding the mouse ADIPOQ (NP_033735.3) (Met 1-Asn 247) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

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

Predicted N terminal: Glu 18

Molecular Mass:

The secreted recombinant mouse ADIPOQ comprises 241 amino acids and has a calculated molecular mass of 26.4 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 30 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

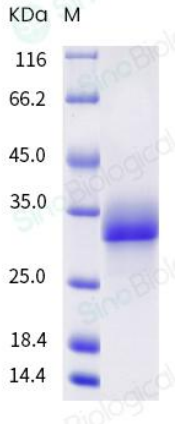
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Adiponectin (ADIPOQ), or 30 kDa adipocyte complement-related protein (Acrp30) 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 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.