

Adiponectin Protein, Mouse, Recombinant (His)

General Information

Synonyms:	apM1;Acdc;adiponectin, C1Q and collagen domain containing;Acrp30;adipo;APN;Ad;GBP28;30kDa
Protein Construction:	Glu18-Asn247
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q60994
Molecular Weight:	26.4 kDa (predicted); 30 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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 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.

Reference

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- Barb D, et al. (2006) Adiponectin: a link between obesity and cancer. *Expert Opin Investig Drugs.* 15(8): 917-31.

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