

PRODUCT INFORMATION



Adiponectin (mouse, recombinant)

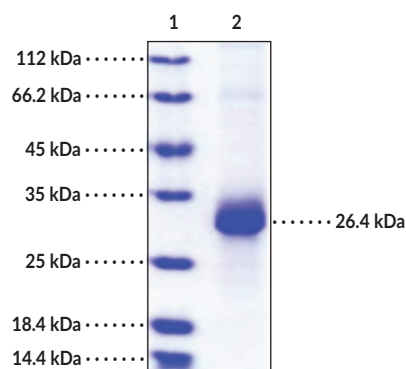
Item No. 32077

Overview and Properties

| | |
|---------------------------|--|
| Synonyms: | Adipocyte, C1q and Collagen Domain-Containing Protein, Adipocyte Complement-Related 30 kDa Protein, 30 kDa Adipocyte Complement-Related Protein, Adipose Specific Collagen-Like Factor |
| Source: | Recombinant mouse C-terminal His-tagged adiponectin expressed in HEK293 cells |
| Amino Acids: | 18-247 |
| Uniprot No.: | Q60994 |
| Molecular Weight: | 26.4 kDa |
| Storage: | -80°C (as supplied) |
| Stability: | ≥1 year |
| Purity: | ≥95% estimated by SDS-PAGE |
| Supplied in: | Lyophilized from sterile PBS, pH 7.4 |
| Endotoxin Testing: | <1.0 EU/μg, determined by the LAL endotoxin assay |

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: Adiponectin

SDS-PAGE Analysis of Adiponectin.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Adiponectin is a pleiotropic adipokine and homolog of the complement 1q (C1q) family encoded by *Adipoq* in mice.^{1,2} It is composed of an N-terminal signal sequence, a hypervariable region, a collagenous domain, and a C-terminal C1q-like globular domain. It is produced in adipocytes, where the 26.4 kDa monomeric protein is post-translationally modified to induce formation of trimer, hexamer, and high molecular weight (HMW) octadecamers that circulate in serum. These adiponectin multimers have distinct biological activities and do not interconvert once present in the circulation. Plasma levels of adiponectin are decreased in *ob/ob* mice and mice with diet-induced obesity that have insulin resistance, and exogenous administration of adiponectin improves insulin sensitivity in these mice by increasing β -oxidation in the skeletal muscle and reducing hepatic and musculoskeletal triglyceride content.¹ Chronic administration of adiponectin reduces hyperglycemia, hyperinsulinemia, and body weight in a mouse model of high-fat diet-induced obesity. Cayman's Adiponectin (mouse, recombinant) protein consists of 241 amino acids, has a calculated molecular weight of 26.4 kDa, and a predicted N-terminus of Glu18 after signal peptide cleavage.

References

1. Fang, H. and Judd, R.L. Adiponectin regulation and function. *Compr. Physiol.* **8(3)**, 1031-1063 (2018).
2. Suzuki, S., Wilson-Kubalek, E.M., Wert, D., *et al.* The oligomeric structure of high molecular weight adiponectin. *FEBS Lett.* **581(5)**, 809-814 (2007).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM