

Product datasheet

Recombinant mouse Adiponectin protein (Active) ab285603

Description

Product name	Recombinant mouse Adiponectin protein (Active)
Biological activity	Determined by its ability to inhibit the proliferation of murine myeloid cell lines M1. The ED ₅₀ for the effect is < 15 µg/ml.
Purity	>= 98 % SDS-PAGE.
Endotoxin level	< 1.000 Eu/µg
Expression system	Escherichia coli
Accession	<u>Q60994</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Mouse
Predicted molecular weight	17 kDa

Specifications

Our **Abpromise guarantee** covers the use of **ab285603** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Form	Lyophilized
Additional notes	This product is manufactured by BioVision, an Abcam company and was previously called 4592 gAcrp30/Adiponectin, murine recombinant. 4592-100 is the same size as the 100 µg size of ab285603. Centrifuge the vial prior to opening.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at -20°C. Store under desiccating conditions. pH: 7.60 Constituent: 0.061% Tris
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Lyophilized from

This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution

Reconstitute in 5 mM Tris, pH 7.6 to a concentration of 0.1-1.0 mg/ml. This stock solution can then be diluted into other aqueous buffers

General Info

Function

Important adipokine involved in the control of fat metabolism and insulin sensitivity, with direct anti-diabetic, anti-atherogenic and anti-inflammatory activities. Stimulates AMPK phosphorylation and activation in the liver and the skeletal muscle, enhancing glucose utilization and fatty-acid combustion. Antagonizes TNF-alpha by negatively regulating its expression in various tissues such as liver and macrophages, and also by counteracting its effects. Inhibits endothelial NF-kappa-B signaling through a cAMP-dependent pathway. May play a role in cell growth, angiogenesis and tissue remodeling by binding and sequestering various growth factors with distinct binding affinities, depending on the type of complex, LMW, MMW or HMW.

Tissue specificity

Synthesized exclusively by adipocytes and secreted into plasma.

Involvement in disease

Defects in ADIPOQ are the cause of adiponectin deficiency (ADPND) [MIM:612556]. ADPND results in very low concentrations of plasma adiponectin. Genetic variations in ADIPOQ are associated with non-insulin-dependent diabetes mellitus (NIDDM) [MIM:125853]; also known as diabetes mellitus type 2. NIDDM is characterized by an autosomal dominant mode of inheritance, onset during adulthood and insulin resistance.

Sequence similarities

Contains 1 C1q domain.
Contains 1 collagen-like domain.

Domain

The C1q domain is commonly called the globular domain.

Post-translational modifications

Hydroxylated Lys-33 was not identified in PubMed:16497731, probably due to poor representation of the N-terminal peptide in mass fingerprinting. HMW complexes are more extensively glycosylated than smaller oligomers. Hydroxylation and glycosylation of the lysine residues within the collagen-like domain of adiponectin seem to be critically involved in regulating the formation and/or secretion of HMW complexes and consequently contribute to the insulin-sensitizing activity of adiponectin in hepatocytes. O-glycosylated. Not N-glycosylated. O-linked glycans on hydroxylysines consist of Glc-Gal disaccharides bound to the oxygen atom of post-translationally added hydroxyl groups. Sialylated to varying degrees depending on tissue. Thr-22 appears to be the major site of sialylation. Higher sialylation found in SGBS adipocytes than in HEK fibroblasts. Sialylation is not required neither for heterodimerization nor for secretion. Not sialylated on the glycosylated hydroxylysines. Desialylated forms are rapidly cleared from the circulation.

Cellular localization

Secreted.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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