abcam

Product datasheet

Recombinant mouse Adiponectin protein (Globular Domain) ab54483

1 References

製品の詳細

製品名	Recombinant mouse Adiponectin protein (Globular Domain)
生理活性	Determined by its ability to inhibit the proliferation of murine myeloid cell lines M1. The ED50 for this effect is ≤ 15 µg/ml.
精製度	> 98 % SDS-PAGE. SDS-PAGE & HPLC analysis
エンドトキシン・レベル	< 1.000 Eu/µg
発現系	Escherichia coli
アクセッション番号	Q60994
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Mouse
配列	MKGEPGEAAYMYRSAFSVGLETRVTVPNVPIRFTKIFYNQQN HYDGSTGK FYCNIPGLYYFSYHITVYMKDVKVSLFKKDKAVLFTYDQYQE KNVDQASG SVLLHLEVGDQVWLQVYGDGDHNGLYADNVNDSTFTGFLLYH DTN
予測される分子量	17 kDa

特性

Our **Abpromise guarantee** covers the use of **ab54483** in the following tested applications.

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

アプリケーション	SDS-PAGE Functional Studies
製品の状態	Lyophilized
備考	gAcrp30 is a naturally occurring globular protein, obtained by proteolytic processing of adiponectin. Adiponectin is produced and secreted exclusively by adipocytes, and is a relatively

abundant plasma protein, accounting for up to 0.05% of total serum protein. Like Adiponectin, gAcrp30 is capable of decreasing hyperglycemia and reversing insulin resistance. Additionally, gAcrp30 has been shown to be an important factor in promoting fat loss by signalling muscle to absorb and burn Free-Fatty Acids (FFAs). The signalling receptors for adiponectin and gAcrp30 have recently been identified and names AdipoR1 and AdipoR2. AdipoR2 is predominantly expressed in the liver. Recombinant mouse gAcrp30 (ab54483) is a 16.6 kDa protein consisting of 145 amino acid residues.

前処理および保存

保存方法および安定性

Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

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

再構成

Reconstitute in water to a concentration of 0.1-1.0mg/ml. This solution can be diluted in water or other buffer solutions.

関連情報

機能

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.

組織特異性

Synthesized exclusively by adipocytes and secreted into plasma.

関連疾患

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.

配列類似性

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

ドメイン

The C1q domain is commonly called the globular domain.

翻訳後修飾

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 collagene-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.

細胞内局在

Secreted.

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