abcam

Product datasheet

Recombinant mouse Adiponectin protein (Globular Domain) ab54483

1 References

描述

产品名称	重组小鼠Adiponectin蛋白(Globular Domain)
生物活性	Determined by its ability to inhibit the proliferation of murine myeloid cell lines M1. The ED50 for this effect is ≤ 15 µg/ml.
纯度	> 98 % SDS-PAGE. SDS-PAGE & HPLC analysis
内毒素水平	< 1.000 Eu/µg
表达系统	Escherichia coli
Accession	Q60994
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Mouse
序列	MKGEPGEAAYMYRSAFSVGLETRVTVPNVPIRFTKIFYNQQN HYDGSTGK FYCNIPGLYYFSYHITVYMKDVKVSLFKKDKAVLFTYDQYQE KNVDQASG SVLLHLEVGDQVWLQVYGDGDHNGLYADNVNDSTFTGFLLYH DTN
预测分子量	17 kDa

技术指标

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.

应用	SDS-PAGE Functional Studies
形式	Lyophilized
补充说明	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.

制备和贮存

稳定性和存储

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.

复溶

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

常规信息

功能

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.

组织特异性

Synthesized exclusively by adipocytes and secreted into plasma.

疾病相关

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.

序列相似性

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

结构域

The C1q domain is commonly called the globular domain.

翻译后修饰

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.

细胞定位

Secreted.

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