

## Product datasheet

# Recombinant mouse Adiponectin protein (Globular Domain) ab54483

### 製品の概要

製品名	Recombinant mouse Adiponectin protein (Globular Domain)
タンパク質長	Full length protein

### 製品の詳細

由来	Recombinant
由来	Escherichia coli
アミノ酸配列	
アクセッション番号	<a href="#">Q60994</a>
生物種	Mouse
配列	MKGEPGEAAYMYRSAFSVGLLETRVTVPNVPIRFTKIFYNQQNHYDGSTGK FYCNIPGLYYFSYHITVYMKDVKVSLFKKDKAVLFTYDQYQEKNDQASG SVLLHLEVGDQVWLQVYGDGDHNGLYADNVNDSTFTGFLLYHDTN
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.

生理活性	Determined by its ability to inhibit the proliferation of murine myeloid cell lines M1. The ED50 for this effect is $\leq 15 \mu\text{g/ml}$ .
アプリケーション	SDS-PAGE Functional Studies
エンドトキシン・レベル	$< 1.000 \text{ Eu}/\mu\text{g}$
精製度	$> 98 \%$ SDS-PAGE. SDS-PAGE & HPLC analysis
製品の状態	Lyophilised
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.

Preservative: None

Buffer: None

Endotoxin level: < 0.1 ng per µg of gAcrp30.

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 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.

細胞内局在

Secreted.

---

**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

---

### **Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <http://www.abcam.co.jp/abpromise> or contact our technical team.

---

### **Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors