

## Product datasheet

# Recombinant Human Adiponectin protein ab51294

1 Image

### Description

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<b>Product name</b>	Recombinant Human Adiponectin protein
<b>Purity</b>	> 90 % SDS-PAGE.
<b>Endotoxin level</b>	< 1.000 Eu/ $\mu$ g
<b>Expression system</b>	Escherichia coli
<b>Accession</b>	<b><u>Q15848</u></b>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human
<b>Sequence</b>	MGHDQETTTQ GPGVLLPLPK GACTGWMAGI PGHPGHNGAP GRDGRDTPG EKGEKGDPL IGPKDIGET GVPGAEGPRG FPGIQGRKGE PGEGAYVYRS AFSVGLETYV TIPNMPIRFT KIFYNQNH DGSTGKFHCN IPGLYFAYH ITVYMKDVKV SLFKKDKAML FTYDQYQENN VDQASGSVLL HLEVGDQVWL QVYGEGERNG LYADNDNDST FTGFLLYHDT N
<b>Predicted molecular weight</b>	25 kDa
<b>Amino acids</b>	15 to 244

### Specifications

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Our **Abpromise guarantee** covers the use of **ab51294** in the following tested applications.

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

**Applications** SDS-PAGE

**Form** Liquid

### Preparation and Storage

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

pH: 7.40  
Constituents: PBS, 0.0154% DTT

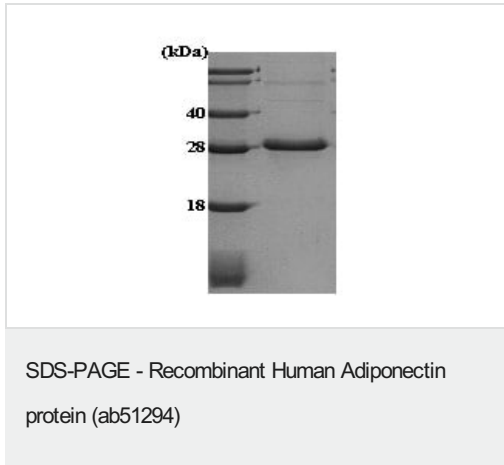
## General Info

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<b>Function</b>	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.
<b>Tissue specificity</b>	Synthesized exclusively by adipocytes and secreted into plasma.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Contains 1 C1q domain. Contains 1 collagen-like domain.
<b>Domain</b>	The C1q domain is commonly called the globular domain.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Secreted.

## Images

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15% SDS-PAGE analysis of recombinant mature human adiponectin ab51294

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

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

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- 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 <https://www.abcam.com/abpromise> or contact our technical team.

### **Terms and conditions**

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