

Product datasheet

Recombinant Human Adiponectin protein ab152086

Description

Product name	Recombinant Human Adiponectin protein
Purity	> 95 % SDS-PAGE. Purity is greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
Endotoxin level	< 1.000 Eu/μg
Expression system	HEK 293 cells
Accession	<u>Q15848</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	ETTTQGPVLLPLPKGACTGWMAGIPGHPGHNGAPGRD GRDGTPGEKGEK GDPGLIGPKGDIGETGVPGAEGPRGFPGIQGRKGEPGEG AYVYRSAFSVG LETYVTIPNMPIRFTKIFYNQNHYDGGSTGKFHCNIPGLYYFA YHITVYM KDVKVSFLFKKDKAMLFTYDQYQENNVDQASGSVLLHLEV GDQVWLQVYGE GERNGLYADNDNDSTFTGFLLYHDTNVDHHHHHH
Predicted molecular weight	26 kDa including tags
Amino acids	19 to 244
Tags	His tag C-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab152086** 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 HPLC
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Form	Lyophilized
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Preparation and Storage

Stability and Storage	<p>Shipped at 4°C. Store at -80°C.</p> <p>pH: 7.4</p> <p>Constituents: 99% Phosphate Buffer, 0.88% Sodium chloride</p>
Reconstitution	<p>Lyophilized from a 0.2 µM filtered solution. Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in 1X PBS. It is not recommended to reconstitute to a concentration less than 100 µg/ml.</p> <p>Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.</p>
General Info	
Function	<p>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.</p>
Tissue specificity	Synthesized exclusively by adipocytes and secreted into plasma.
Involvement in disease	<p>Defects in ADIPOQ are the cause of adiponectin deficiency (ADPND) [MIM:612556]. ADPND results in very low concentrations of plasma adiponectin.</p> <p>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.</p>
Sequence similarities	<p>Contains 1 C1q domain.</p> <p>Contains 1 collagen-like domain.</p>
Domain	The C1q domain is commonly called the globular domain.
Post-translational modifications	<p>Hydroxylated Lys-33 was not identified in PubMed:16497731, probably due to poor representation of the N-terminal peptide in mass fingerprinting.</p> <p>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.</p> <p>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.</p> <p>Desialylated forms are rapidly cleared from the circulation.</p>
Cellular localization	Secreted.

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