

# PRODUCT DATA SHEET



Bioworld Technology, Inc.

## Recombinant Adiponectin, Human

Catalog Number: BK0002-1mg

Source: Escherichia coli.

Quantity: 1mg

### Description:

Adiponectin is a hormone mainly produced by adipocytes. Adiponectin forms a homotrimer and exists as higher order multimers in vivo. The receptors of Adiponectin are seven-transmembrane G protein coupled receptors: Receptor 1 is expressed in skeletal muscle and Receptor 2 in liver. Adiponectin receives a lot of attention because of its anti-diabetic, anti-atherosclerotic, and anti-inflammatory properties. Adiponectin increases the expression of molecules involved in fatty acid transport, combustion of fatty acid, and energy dissipation, and increases insulin sensitivity of the body. Decreased levels of Adiponectin are associated with hypertension, cardiovascular diseases, and metabolic syndromes. Therefore, Adiponectin has promising potential as a pharmacological agent. Recombinant human Adiponectin (rhAdiponectin) produced in E.coli is a single non-glycosylated polypeptide chain containing 227 amino acids. A fully biologically active molecule, rhAdiponectin has a molecular mass of 24.7 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

### Molecular Weight:

24.7 kDa, observed by reducing SDS-PAGE.

### Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

### Biological Activity:

ED50 < 5 µg/mL, measured by a cell growth inhibitory assay using M1 cells, corresponding to a specific activity of > 2 × 10<sup>2</sup> units/mg.

### Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

### Formulation:

Lyophilized after extensive dialysis against 50 mM Tris, 150 mM NaCl, pH8.0.

### AA Sequence:

METTTQGGVLLPLPKGACTGWMAGIPGHPGH-  
MAGIPGHPGH-  
NGAPGRDGRDGTPEKGEKGDPLIGPKG-  
DIGETGVP-  
GAEGPRGFPGIQGRKGEPGEGAYVYRSAFSVGL-  
TYVTIPNMPPIRFTKIFYNQNHYD-  
GSTGKFHCNIPGLYY-  
FAYHITVYMKDVKVSFLFKDKAM-  
LFTYDQYQENNVDQASGSVLLHLEVGDQVWLQ  
VYGEGERNGLYADNDNDSTFTGFLLYHDTN

### Endotoxin:

< 0.2 EU/µg, determined by LAL method.

### Reconstitution:

Reconstituted in ddH<sub>2</sub>O at 100 µg/mL.

### Storage:

Lyophilized recombinant human Adiponectin (rhAdiponectin) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rhAdiponectin remains stable up to 2 weeks at 4 °C or up to 3 months at -20 °C.

### Usage:

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