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# GBP-28, Apm-1

Catalog # PVGS1352

## Product Information

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| **Primary Accession** | Q15848 |
| **Species** | Human |
| **Sequence** | METTTQGPGV LLPLPKGACT GWMAGIPGHP GHNGAPGRDG RDGTPGEKGE KGDPGLIGPK GDIGETGVPG AEGPRGFPGI QGRKGEPGEG AYVYRSAFSV GLETYVTIPN MPIRFTKIFY NQQNHYDGST GKFHCNIPGL YYFAYHITVY MKDVKVSLFK KDKAMLFTYD QYQENNVDQA SGSVLLHLEV GDQVWLQVYG EGERNGLYAD NDNDSTFTGF LLYHDTN |
| **Purity** | > 95% as analyzed by SDS-PAGE and HPLC. |
| **Endotoxin Level** | |
| **Formulation** | Lyophilized after extensive dialysis against 50 mM Tris, 150 mM NaCl, pH8.0. |
| **Reconstitution** | Reconstituted in dd$H_2O$ at 100 □g/mL. |

## Additional Information

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| **Gene ID** | 9370 |
| **Other Names** | Adiponectin, 30 kDa adipocyte complement-related protein, Adipocyte complement-related 30 kDa protein, ACRP30, Adipocyte, C1q and collagen domain-containing protein, Adipose most abundant gene transcript 1 protein, apM-1, Gelatin-binding protein, ADIPOQ |
| **Target Background** | 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.<br>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 . |

## Protein Information

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| **Name** | ADIPOQ |
| **Function** | Important adipokine involved in the control of fat metabolism and insulin sensitivity upon binding to its receptors ADIPOR1 or ADIPOR2, with direct anti-diabetic effect. Also has anti-atherogenic and anti-inflammatory activities (By similarity). Stimulates AMPK phosphorylation and activation in the liver and the skeletal muscle, enhancing glucose utilization and fatty-acid combustion (By similarity). Antagonizes TNF 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 (PubMed:10982546). 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 (By similarity). |
| **Cellular Location** | Secreted. |
| **Tissue Location** | Synthesized exclusively by adipocytes and secreted into plasma. |

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