

apm-1, Adipolean (human)

Catalog # PVGS1294

Product Information

Primary Accession Q15848
Species Human

Sequence KGEPGEGAYV YRSAFSVGLE TYVTIPNMPI RFTKIFYNQQ NHYDGSTGKF

HCNIPGLYYF AYHITVYMKD VKVSLFKKDK AMLFTYDQYQ ENNVDQASGS

VLLHLEVGDQ VWLQVYGEGE RNGLYADNDN DSTFTGFLLY HDTN

Purity > 95% by SDS-PAGE analysis.

Endotoxin Level

Formulation Lyophilized after extensive dialysis against PBS.

Reconstitution Reconstituted in ddH_2O at 100 \lg/mL .

Additional Information

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 gAcrp30/Adipolean is the globular head domain of Adipocyte

complement-related protein of 30 kDa (Acrp30), a cytokine expressed in adipocytes. The name of Acrp30 is bases on its closest homolog, complement factor c1q, and the globular domain of Acrp30 has an unexpected homolog with the Tumor Necrosis Factor (TNF) family of cytokines. Acrp30 is the isoform of adiponectin, and shares the two receptors with adiponectin: adipoR1 expressed in skeletal muscle, and adipoR2 expressed in liver. The expression level of Acrp30 in adipocytes is negatively correlated with body weight, and is lower in obese mouse than normal mouse. The globular domain of Acrp30 induces free fatty acid oxidation in muscle and weight reduction in mouse, therefore shows potential pharmacological effects in obesity.

Recombinant human gAcrp30/Adipolean (rhgAcrp30) produced in E. coli is a single non-glycosylated polypeptide chain containing 144 amino acids. A fully

biologically active molecule, rhgAcrp30 has a molecular mass of 16.6 kDa

analyzed by reducing SDS-PAGE and is obtained by proprietary

chromatographic techniques at .

Protein Information

Name ADIPOQ

Function 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.

Cellular Location Secreted.

Tissue Location Synthesized exclusively by adipocytes and secreted into plasma.

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