

gAcrp30/Adipolean, Mouse

Cat. No.: Z03112-1

Size: 1.0 mg

Synonyms: ACDC, APM1

Description:

gAcrp30 is the globular head domain of Adipocyte complement-related protein of 30 kDa (Acrp30), a cytokine expressed in adipocytes. The name of Acrp30 is based on its closest homolog, complement factor C1q, and the globular domain of Acrp30 has an unexpected homology with the Tumor Necrosis Factor (TNF) family of cytokines. Acrp30 is recognized by two receptors: 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, suggesting its potential use as a pharmacological agent in obesity.

Recombinant mouse gAcrp30 (rmgAcrp30) produced in *E. coli* is a single non-glycosylated polypeptide chain containing of 144 amino acids. A fully biologically active molecule, rmgAcrp30 has a molecular mass of 16.5 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 KGEPGEAAYM YRSAFSVGL E TRVTVPNVPI RFTKIFYNQQ
00041 NHYDGSTGKF YCNIPGLYF SYHITVYMKD VKVSLFKKDK
00081 AVLFTYDQYQ EKNVDQASGS VLLHLEVGDQ VWLQVYGDGD
00121 HNGLYADNVN DSTFTGFLLY HDTN
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Source: *E. coli*

Species: Mouse

Biological Activity: ED₅₀ < 2 µg/mL, measured by a cell proliferation assay using M1 cells, corresponding to a specific activity of > 500 units/mg.

Molecular Weight: 16.5 kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant mouse gAcrp30 (rmgAcrp30) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmgAcrp30 should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.