

## gAcrp30/Adipolean, Human

**Cat. No.:** Z03091-50

**Size:** 50.0 ug

**Synonyms:** apm-1, Adipolean (human)

### Description:

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 based 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 GenScript.

### Amino Acid Sequence:

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00001 KGEPGEGAYV YRSAFSVGL E TYVTIPNMPI RFTKIFYNQQ
00041 NHYDGSTGKF HCNIPGLYYF AYHITVYMKD KVKSLFKKDK
00081 AMLFTYDQYQ ENNVDAQSGS VLLHLEVGDQ VWLQVYGEGE
00121 RNGLYADNDN DSTFTGFLLY HDTN
```

**Source:** *E. coli*

**Species:** Human

**Biological Activity:** ED<sub>50</sub> < 10 ug/mL, measured by a cell growth inhibition assay using M1 cells, corresponding to a specific activity of > 100 units/mg.

**Molecular Weight:** 16.6 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

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

**Purity:** > 95% by SDS-PAGE analysis.

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

**Storage:** Lyophilized recombinant human gAcrp30/Adipolean (rhgAcrp30) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhgAcrp30 should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.