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ADIPOQ
Recombinant Human Globular Adiponectin / gACRP30, Animal Free

Catalog No.	CRA025A-AF	**Quantity:**	5 µg
	CRA025B-AF		25 µg
	CRA025C-AF		1.0 mg
	CRA025D-AF		100 µg

Alternate Names: Adipocyte complement-related 30 kDa protein, Acrp30, 30 kDa adipocyte complement-related protein, Gelatin-binding protein, Adipocyte, C1q and collagen domain-containing protein

Description: Adiponectin is a 30 kDa multimeric protein and is secreted mainly by white adipose tissue, although other tissues express low levels of adiponectin too. Full-length human adiponectin comprises 244 amino acid residues, including a N-terminal hyper-variable region (amino acids from 1–18), followed by a collagen-like domain structurally homologous with collagen VIII and X, consisting of 22 Gly-XY repeats, and a C-terminal C1q-like globular domain (amino acids from 108–244). In contrast to humans, mouse adiponectin is a 247 amino acid long protein. Adiponectin is secreted from adipocytes into the bloodstream as three oligomeric complexes, including trimer (67 kDa), hexamer (140 kDa), and a HMW (300 kDa) multimer comprising of at least 18 monomers. The monomeric form of adiponectin is undetectable in native conditions.

Globular adiponectin, the globular C1q domain of adiponectin generated from full-length protein by naturally occurring proteolysis is biologically active. gACRP30 is detected at a relatively high concentrations in the serum and is thought to play an important role in hyperglycemia, insulin resistance and cognitive decline in obesity. gACRP30 signals through receptors, AdipoR1 and AdipoR2. T-cadherin as a receptor for hexameric and HMW forms of adiponectin.

UniProt ID: Q15848

Gene ID: 9370

Source: *E. coli*
Manufactured in an Animal-Free facility, without Animal-Derived materials.

Molecular Weight: 16.7 kDa (145 aa) monomer

Formulation: Lyophilized from a sterile-filtered aqueous solution containing 10 mM sodium phosphate, 0.5 mM DTT, pH 7.5

Purity: ≥ 90% by reducing and non-reducing SDS-PAGE,

Endotoxin Level: ≤ 1 EU/µg by kinetic LAL

Biological Activity: ED_{50} ≤ 2.0 µg/ml, determined by inhibition of M1 cell proliferation.

Specific Activity: ≥ 500 units/mg

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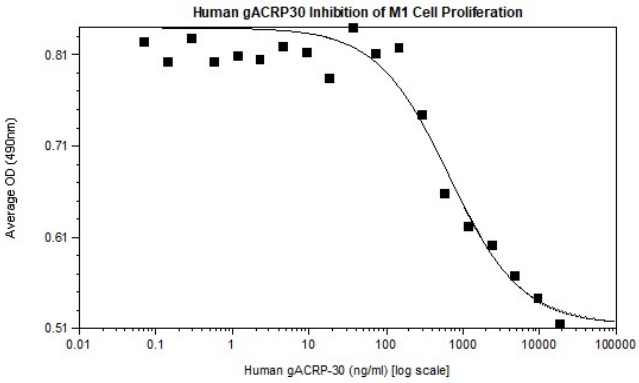
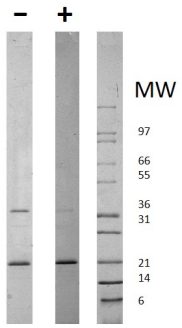
Amino Acid Sequence: MKGEPGEGAY VYRSAFSVGL ETYVTIPNMP IRFTKIFYNQ QNHYDGSTGK FHCNIPGLYY FAYHITVYMK DVKVSLFKKD KAMLFTYDQY QENNVDQASG SVLLHLEVGD QVWLQVYGEG ERNGLYADND NDSTFTGFLL YHDTN

Reconstitution: **Centrifuge vial prior to opening**. Add sterile 10 mM sodium phosphate, 0.5 mM DTT, pH 7.5 to a concentration of 0.1 mg/ml and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for reconstitution.

Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, prepare working aliquots and store at -20°C to -80°C. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage.
Avoid repeated freeze-thaw cycles.





Human gACRP-30
Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Human gACRP-30 has a predicted MW of 16.7 kDa.

NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

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