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## Recombinant Human Adiponectin (Acrp30)

CLCYT433  
CLCYT433-2  
Lot: 106ACRP301

**Source:** *E.coli*

**Introduction:**

Adiponectin, also referred to as Acrp30, AdipoQ and GBP-28, is a recently discovered 244 amino acid protein, the product of the *apM1* gene, which is physiologically active and specifically and highly expressed in adipose cells (adipokine). The protein belongs to the soluble defence collagen superfamily; it has a collagen-like domain structurally homologous with collagen VIII and X and complement factor C1q-like globular domain. Adiponectin forms homotrimers, which are the building blocks for higher order complexes found circulating in serum.

**Description:**

The Human Adiponectin is created as a recombinant protein with N-terminal fusion of HisTag. The Human Adiponectin His-Tagged Fusion Protein, produced in *E. coli*, is 26.4 kDa protein containing 230 amino acid residues of the human Adiponectin and 12 additional amino acid residues - HisTag (underlined).

**Specificity:**

The amino acid sequence of the recombinant human adiponectin is 100% homologous to the amino acid sequence of the human serum adiponectin.

**Purification Method:**

Three-step procedure using affinity Ni-NTA chromatography and size exclusion chromatography before and after refolding.

**Purity:**

>95% (SDS-PAGE analyzed).

**Presentation:**

10µg (CLCYT433) or 50µg (CLCYT433-2), sterile filtered and lyophilized from 0.5 mg/ml in 0.02M Tris buffer pH7.5, 0.15M NaCl.

*Continued overleaf...*

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**Reconstitution:**

Add 0.2 ml of 0.1M Acetate buffer pH4 and let the lyophilized pellet dissolve completely. For conversion into higher pH value, we recommend intensive dilution by relevant buffer to a concentration of 10 $\mu$ g/ml. In higher concentrations the solubility of this antigen is limited.

**Storage:**

Store lyophilized protein at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C.

**Quality Control Test:**

BCA - to determine content of the protein SDS PAGE - to determine purity of the protein.

**Applications:**

Western blotting.

**References:**

- Xu A, Wang Y, Keshaw H, Xu LY, Lam KS, Cooper GJ. The fat-derived hormone adiponectin alleviates alcoholic and nonalcoholic fatty liver diseases in mice. *J Clin Invest.* 2003;112:91-100.
- Wang Y, Xu A, Knight C, Xu LY, Cooper GJ. Hydroxylation and glycosylation of the four conserved lysine residues in the collagenous domain of adiponectin. Potential role in the modulation of its insulin-sensitizing activity. *J Biol Chem.* 2002;277:19521-19529.
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