



Resistin Human E. coli

Product Data Sheet

Type: Recombinant

Source: E. coli

Species: Human

Cat. No.:

RD172016300 (0.1 mg)

Other names: Cysteine-rich secreted protein FIZZ3, Adipose tissue-specific secretory factor, ADSF, C/EBP-epsilon-regulated myeloid-specific secreted cysteine-rich protein, Cysteine-rich secreted protein A12-alpha-like 2, RETN, FIZZ3, HXCP1, RSTN, UNQ407/PRO1199

Introduction to the Molecule

Resistin is a peptide hormone belonging to the class of cysteine-rich secreted proteins. It is a product of the RSTN gene. Human resistin contains 108 amino acids as a prepeptide and its hydrophobic signal peptide is cleaved before its secretion. Resistin circulates in human blood as a dimeric protein consisting of two 92 amino acid polypeptides, which are disulfide-linked via Cys26. Resistin may be an important link between obesity and insulin resistance. Mouse resistin, specifically produced and secreted by adipocyte, affects skeletal muscle myocytes, hepatocytes and adipocytes themselves so that it reduces their sensitivity to insulin. Steppan et al. have suggested that resistin suppresses the ability of insulin to stimulate glucose uptake. They have also suggested that resistin is present at elevated levels in blood of obese mice, and is down regulated by fasting and antidiabetic drugs. Way et al., on the other hand, have found that resistin expression is severely suppressed in obesity and is stimulated by several antidiabetic drugs. Other studies have shown that mouse resistin increases during the differentiation of adipocytes, but it also seems to inhibit adipogenesis. In contrast, the human adipogenic differentiation is likely to be associated with a down regulation of resistin gene expression. Recent studies have shown that human resistin is expressed also in macrophages and may be a novel link between inflammation and insulin resistance.

Research topic

Energy metabolism and body weight regulation

Source

E. coli

Purity

Purity as determined by densitometric image analysis: >95%

SDS-PAGE gel



Endotoxin

<1.0 EU/μg

Formulation

Filtered (0.4 μm) and lyophilized in 0.5 mg/mL in 5mM Tris, 25mM NaCl, pH 7.5

Reconstitution

Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage, Stability/Shelf Life

Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

LAL TEST to determine quantity of endotoxin.

Applications

Western blotting

Note

This product is intended for research use only.

References to this Product

- Stejskal D, Karpisek M . *Adipocyte fatty acid binding protein in a Caucasian population: a new marker of metabolic syndrome?*. [Eur J Clin Invest](#) . Sep;36(9):621-5 (2006)
- Yagmur E, Trautwein C, Gressner AM, Tacke F . *Resistin serum levels are associated with insulin resistance, disease severity, clinical complications, and prognosis in patients with chronic liver diseases*. [Am J Gastroenterol](#) . Jun;101(6):1244-52 (2006)
- Rothwell SE, Richards AM, Pemberton CJ . *Resistin worsens cardiac ischaemia-reperfusion injury*. [Biochem Biophys Res Commun](#) . Oct 13;349(1):400-7 (2006)

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