



Resistin, human recombinant (rHuResistin)

Catalog No: 86427
Lot No: XXXXX
Source: *E. coli*
Synonyms: 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, RSTN, XCP1, RETN1, MGC126603, MGC126609

Background

Resistin, a product of the RSTN gene, is a peptide hormone belonging to the class of cysteine-rich secreted proteins which is termed the RELM family, and is also described as ADSF (Adipose Tissue- Specific Secretory Factor) and FIZZ3 (Found in Inflammatory Zone). 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, acts on 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.

Description

Resistin human recombinant produced in *E. coli* is a 9.9 kDa protein containing 93 amino acids. The amino acid sequence of the recombinant Resistin is homologous to the amino acid sequence of human Resistin without signal sequence. Resistin is purified by two-step procedure using size exclusion chromatography before and after refolding.

Formulation

Recombinant human Resistin was lyophilized from a concentrated (1 mg/ml) solution containing 0.03% NaHCO₃.

Solubility

Add 0.2 ml of deionized water and let the lyophilized pellet dissolve completely.

Stability

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.

Purity

Greater than 98% as determined by SDS-PAGE.

Amino Acid Sequence

ASSKTLCSME EAINERIQEV AGSLIFRAIS SIGLEQSVT SRGDLATCPR GFAVTGCTCG SACGSWDVRA ETTCHCQCAG
MDWTGARCCR VQP

CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • info@biomol.de • www.biomol.de

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51

**Activity**

The biological activity was evidenced by the Resistin ability to prevent insulin-stimulated uptake of deoxy glucose in several cell lines at 10 ng/ml concentration corresponding to a specific activity of 100,000 IU/mg.

Usage

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