

Resistin Rat E. coli

Product Data Sheet

Type: Recombinant	Cat. No.:	
Source: E. coli	RBG30072005	(5 µg)
Species: Rat	RBG30072025	(25 µg)
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	RBG30072100	(100 µg)

Description

Resistin belongs to a family of tissue-specific cytokines termed FIZZ (found in inflammatory zones) and RELM. The four known members of this family, resistin, RELMalpha, RELMbeta, and RELM?, share a highly conserved C-terminal domain, characterized by 10 cysteine residues with a unique spacing motif of C-X11-C-X8-C-X-C-X3-C-X10-C-X-C-X-C-X9-C-C. Resistin is an adipose-derived cytokine (adipokine) whose physiological function and molecular targets are largely unknown. Studies have shown that resistin suppresses insulin's ability to stimulate glucose uptake, and postulated that resistin might be an important link between obesity and Type 2 diabetes. Other studies have indicated that resistin expression is severely suppressed in obesity, and that it may act as a feedback regulator of Adipogenesis. Recombinant Rat Resistin is a 20.0 kDa, disulfide-linked, homodimeric protein composed of two 94 identical amino acid chains linked by a single disulfide bond.

Introduction to the Molecule

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. Stepan 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

Animal studies, Diabetology - Other Relevant Products, Energy metabolism and body weight regulation

Amino Acid Sequence

PSMSLCPMDE AISKKINQDF SSSLPAAMKN TVLHCWSVSS RGLASCPEG TTVTSCSCGS GCGSWDVRED TMCHCQCGSI
DWTAAARCCTL RVGS

Source

E. coli

Purity

97%

Biological Activity

Data not available.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: info@biovendor.com sales@biovendor.com Web: www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail: infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail: infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail: infoUSA@biovendor.com