

**Purified Resistin/ADSF/FIZZ3 Proteins**

<b>Cat. RSTN15-R-5</b>	<b>Mouse</b> resistin purified protein	<b>SIZE:</b> 5 ug
<b>Cat. RSTN15-R-25</b>	<b>Mouse</b> resistin purified protein	<b>SIZE:</b> 25 ug
<b>Cat. RSTN16-R-5</b>	<b>Human</b> resistin purified protein	<b>SIZE:</b> 5 ug
<b>Cat. RSTN16-R-25</b>	<b>Human</b> resistin purified protein	<b>SIZE:</b> 25 ug

Resistance to insulin characterizes type 2 diabetes, the most common form of diabetes. There is a strong link between type 2 diabetes and obesity, as most patients tend to be obese. Thiozolidinediones (TZDs), a new class of anti-diabetic, enhances target-tissue sensitivity to insulin. A screen of genes down regulated by TZD in adipocyte led to the discovery of a new protein hormone called **resistin** (for resistance to insulin). Resistin, specifically produced and secreted by adipocyte, is present at elevated levels in the blood of obese animals, and is down regulated by fasting and anti-diabetic drugs. Some other protein related to resistin has been called resistin-related molecules (**RELM-alpha and beta**). Resistin family of proteins was also identified as proteins (**FIZZ1-3**, for Found in Inflammatory zone) involved in allegory and inflammation.

Resistin is also described as serine/cysteine-rich Adipocyte-Specific Secretory Factor (**ADSF or FIZZ3**). Resistin (pre peptide length: human 108 aa; mouse/rat 114 aa; mol wt ~12.5 kDa) is characterized by the presence of a hydrophobic signal peptide that is cleaved before its secretion. Resistin proteins show ~55% homology in human and mouse. It is 45-55% related to **RELM-alpha/FIZZ1/PMNG1 (Parasite-induced Macrophage Novel Gene 1)**. RELM-alpha mRNA was most abundant in white adipose tissue. It is also expressed in mammary tissue with significant fat pads. Unlike resistin, RELM-alpha is not expressed in 3T3-L1 adipocyte or in preadipocytes. It is also found in heart, lung and tongue, where resistin is absent. In mice, RELM-alpha/FIZZ1 is found at low levels in a subset of bronchial epithelial cells and in non-neuronal cells adjacent to neurovascular bundles in the peribronchial stroma, and in the wall of the large and small bowel.

**Source of Protein and controls**

Mouse or human resistin were expressed in E. coli and purified to >98%. Purified protein is a homodimer of ~20 Kda in native state and ~9-10 kDa in denatured form.

**Purified mouse** (cat # RSTN15-R-5 & cat # RSTN15-R25) and **human** (cat # RSTN16-R & cat # RSTN16-R-25) **resistin** proteins are available in carrier free, and any additive free forms in 25 mM Tris buffer, pH 8.0 (10 ug/vial). Reconstitute in appropriate buffer (100 ul of PBS or Tris, pH 7.5-8.0) and vortex at room temp. The proteins can be realiquoted and stored frozen at -20oC or below. This preparation is not sterile. It has very low endotoxin level (<0.1 ng/1 ug of protein). The biological activity of resistin has not been tested.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder.

**General References:** (1) Steppan CM et al (2001) Nature 409, 307; Steppan CM et al (2001) PNAS 98, 502; Holcomb IN et al (2000) EMBO J. 19, 4046-4055; Kim K-H et al (2001) J. Biol. Chem. 276, 11252-11256

**(2) Citations of ADI's Antibodies** (see web site for updated list)

Degawa-Yamauchi M 2003 Serum Resistin (FIZZ3) Protein Is Increased in Obese Humans J. Clin. Endocrinol. Metab., Nov 2003; 88: 5452 – 5455

Pravenec M 2003 Transgenic and recombinant resistin impair skeletal muscle glucose metabolism in the spontaneously hypertensive rat J. Biol. Chem., 278, 45209-45215

\*This product is for in vitro research use only.

**Related material available from ADI**

Antibodies to Leptin, leptin receptor, Orexins, CART, UCPs, Adipsin, Acc1/2, FABP etc. Acrp30/AdipQ etc

**Western Blot recycling kit** (Use the same blot to probe with multiple resistin antibodies)

**ReadyBlot brain, Kidney, and GI Tract Protein Blots**

RSTN15-16-R

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