ALPHA DIAGNOSTIC INTERNATIONAL

Life Technologies™ Your Molecular & Cell Technology Partner

Product Specification Sheet

Resistin/Fizz3/ADSF Antibodies

Cat. RSTN11-P	**Mouse** Resistin control/blocking peptide # 1	**SIZE**: 100 ug
Cat. RSTN11-S	**Rabbit** Anti-Mouse Resistin antiserum # 1	**SIZE**: 100 ul
Cat. RSTN11-A	**Rabbit** Anti-Mouse Resistin IgG # 1 (aff. pure)	**SIZE**: 100 ug
Cat. RSTN11-C	**Mouse** resistin purified protein WB +ve control	**SIZE**: 100 ul

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.

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).**

Source of antigen, antibodies and +ve Control

Antigen	A 14-aa peptide from mouse resistin designated control/blocking peptide (cat # RSTN11-P); epitope location ~ N-terminus
Ab Host/type	Rabbit, polyclonal Unpurified antiserum (**cat #RSTN11-S)** & Aff pure IgG **(cat # RSTN11-A) purified over antigen-agarose column**
2ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

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 **resistin protein for Western blot +ve control** (**#RSTN11-C and RSTN12-C**) are supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of RSTN11-C (mouse resistin) for good visibility with antibody Cat # RSTN11-S or RSTN11-A. Load 10 ul/lane of RSTN12-C (human resistin) for good visibility with antibody Cat # RSTN12-S or RSTN12-A. Store at – 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 **resistin protein for Western blot +ve control** (**#RSTN11-C and RSTN12-C**) are supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of RSTN11-C (mouse resistin) for good visibility with antibody Cat # RSTN11-S or RSTN11-A. Load 10 ul/lane of RSTN12-C (human resistin) for good visibility with antibody Cat # RSTN12-S or RSTN12-A. Store at –

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)
100ul solution lyophilized powder
Supplied 0.05% azide, **Reconstitute** powder in 100 ul PBS

Affinity pure IgG
100 ug/100ul solution lyophilized powder
Supplied in **Buffer**: PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide
100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage
Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..
Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.
Stability: 6-12 months at –20oC or below.

Recommended Usage

Western Blotting 1-5 ug/ml for affinity pure using Chemiluminescence technique. See published refs 2.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

Histochemistry & Immunofluorescence: See published refs 2..

Specificity & Cross-reactivity
Mouse resistin RSTN11-P sequence is 76% conserved in rat and only 35% conserved in human resistin. We recommend the use of antibody Cat # RSTN12-S that is raised to human resistin sequence. Antibody crossreactivity in various species is not established. We recommend the use of control peptide in antibody blocking experiments to establish antibody specificity. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol see detailed protocol at the web site). Recombinant purified resistin proteins for mouse (cat # RSTN11-C) and human (Cat # RSTN12-C) are available for control studies.

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

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

Degawa-YM, 2003, J. Clin. Endocrinol. Metab., Nov 2003; 88: 5452 - 5455
Pravenec M, 2003, J. Biol. Chem., 278, 45209-45215

*This product is for in vitro research use only.

Related Items

Human and Mouse Resistin, Leptin, Acrp30 **ELISA kits** are now available (see web site for details).

RSTN11-S-A-P-C 71213A

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