

Product Specification Sheet

Resistin/ADSF Antibodies and Protein controls

Cat. RSTN12-P Human resistin control/blocking peptide # 2	SIZE: 100 ug
Cat. RSTN12-S Rabbit Anti-Human resistin antiserum # 2	SIZE: 100 ul
Cat. RSTN12-A Rabbit Anti-Human resistin IgG # 2 (aff. pure)	SIZE: 100 ug
Cat. RSTN12-CHuman Recombinant Resistin 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. Thiazolidinediones (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 (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)**.

FUNCTION: Hormone that seems to suppress insulin ability to stimulate glucose uptake into adipose cells. Potentially links obesity to diabetes.

SUBCELLULAR LOCATION: Secreted.

SIMILARITY: Belongs to the resistin/FIZZ family.

Protein name Resistin [Precursor]

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

Gene name Name: RETN; Synonyms: FIZZ3, HXCP1, RSTN
ORFNames: UNQ407/PRO1199

Source of antigen, antibodies and +ve Control

Antigen	14-aa peptide N-terminus of human resistin (1) ; (protein accession #Q9HD89 , refs 1) Designated (RSTN12-P or control peptide) .conjugated to KLH; Epitope location ~N-terminus
Ab Host/type	Rabbit, Polyclonal antiserum (Cat # RSTN12-S) and IgG, purified over antigen-agarose (Cat # RSTN12-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Human resistin protein for Western blot +ve control (**Cat # RSTN12-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **RSTN12-C** for good visibility with antibody Cat # **RSTN12-S**. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the

RSTN12-C solution prior to heating and loading on gels. This

preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or heat repeatedly

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder

Supplied in Buffer: 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 1 mg/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 20°C and powder at 4°C or -20°C..

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting 1-5 ug/ml for affinity pure using Chemiluminescence technique.

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

Histochemistry & Immunofluorescence: Not tested.

Specificity & Cross-reactivity

Human resistin RSTN12-P sequence is 76% conserved in pig and only 35% conserved in mouse resistin. We recommend the use of antibody Cat # RSTN11-S that is raised to mouse resistin sequence. No significant sequence RSNT12-P was found with RELMs. 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

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

*This product is for in vitro research use only.

Resistin, Adiponectin, gAcrp30, Leptin ELISA kits
RSTN12-S-A-P-C 709113J