

## Adipokine Signaling

White adipose tissue (WAT), in humans, can account for 20 % of body weight in men and 25% of the body weight in women. Its cells which include a single large fat droplet also have receptors for insulin, growth hormones, norepinephrine and glucocorticoids. Moreover, adipose tissue is an important endocrine tissue that secretes numerous highly active molecules into circulation such as the adipocytokines (or adipokines) which include, in part, leptin, resistin, adiponectin and visfatin. More classical cytokines are also released possibly by inflammatory cells infiltrating fat and include TNF- $\alpha$ , IL-1 $\beta$ , IL-6, IL-8, IL-10, TGF- $\beta$ , nerve growth factor, etc. which are linked to the inflammatory response.

Obesity is accompanied by generalized inflammation and dys-regulation of cytokine production. The adipokine Leptin, a protein product of the Ob gene, is a strong appetite suppressant and once a lead candidate for hopes of treating type 2 diabetes and obesity. Although brain resistance to leptin has suggested this treatment may be impossible there is still strong interest in the plethora of protein hormones secreted by adipose tissue, especially since research has shown that receptors for these adipokines are widely expressed throughout the cardiovascular and immune system.

The effects of adipocytokines (including both adipokines and the classical cytokines) on vascular function, immune regulation and adipocyte metabolism makes them key players in the pathogenesis of metabolic syndrome, which is a cluster of clinical symptoms including obesity, insulin resistance, hypertension and dyslipidemia.

BioVision is proud to offer a variety of reagents for the study of adipokine signaling as well as diabetes and obesity research.

### Adipokine Assay Kits

Name	Cat. #
Adiponectin (human) Elisa Assay Kit	K4901-100
Adiponectin (mouse) Elisa Assay Kit	K4902-100
Adiponectin (rat) Elisa Assay Kit	K4903-100
Resistin (human) Serum ELISA Kit	K4919-100
Resistin (mouse) Serum ELISA Kit	K4920-100
Vaspin (human) Serum ELISA Kit	K4917-100
Visfatin (human) Elisa Assay Kit	K4907-100

### Antibodies to Adipokines

Name	Cat. #
Adiponectin Antibody	5901-50, 250
Adiponectin Antibody	5902-50, 250
Adiponectin Antibody	5903-50, 250
Adiponectin Antibody (Clone MADI-1147)	5900-50
AdipoR1 Antibody	3940-200
IL-1 beta Antibody	5128-100
IL-1 beta Antibody	5129-100
IL-6 Antibody	5143-100
IL-6 Antibody	5144-100
IL-6 Antibody	5145-100
IL-8 Antibody	5149-100
Leptin Antibody	5366-100

### Antibodies to Adipokines Continued...

Name	Cat. #
Leptin Antibody	5367-100
Leptin Receptor Antibody	5582-100
MCP-1 Antibody	5222-100
MCP-1 Antibody	5225-100
MIF Antibody	5571-100
Resistin Antibody	5997-100
Resistin Antibody	5999-100
TNF-alpha Antibody	3052R-100
TNF-alpha Antibody	3053R-100
TNF-alpha Antibody	3054-100
VEGF Antibody	5363-100
VEGF Antibody	5365-100
VEGF Antibody	5364R-100

## Adipokines

<b>Name</b>	<b>Cat. #</b>
Adiponectin, human recombinant	4901-25, 100, 1000
Adiponectin, murine recombinant	4902-25, 100, 1000
Adiponectin, rat recombinant	4903-25, 100, 1000
gAcrp30/Adiponectin, human recombinant	4591-25, 100, 1000
gAcrp30/Adiponectin, murine recombinant	4592-25, 100, 1000
gAcrp30/Adiponectin, rat recombinant	4593-25, 100, 1000
IL-1 beta, human recombinant	4128-10
IL-1 beta, murine recombinant	4129-10
IL-1 beta, rat recombinant	4130-10
IL-6, human recombinant	4143-20, 100, 1000
IL-6, murine recombinant	4144-10, 1000
IL-6, rat recombinant	4145-10, 1000
IL-8 (72 a.a.), human recombinant	4149M-25, 1000
IL-8 (77 a.a.), human recombinant	4149-25, 1000
IL-10, human recombinant	4155-10
IL-10, murine recombinant	4156-10
Leptin, human recombinant	4366-02,1,5, 10
Leptin, murine recombinant	4367-1,5
Leptin, rat recombinant	4368-1,5
MCP-1 (MCAF), human recombinant	4222-20, 100, 1000
MCP-1 (MCAF), rat recombinant	4224-10, 1000
MIF, human recombinant	4984-10, 1000
NGF-beta, human recombinant	4303-20, 1000
NGF-beta, murine recombinant	4304-20, 1000
Resistin, human recombinant	4559-25, 100, 1000
Resistin, murine recombinant	4560-25, 100, 1000
Resistin, rat recombinant	4561-25, 100, 1000
TGF-beta1, human recombinant	4342-5
TGF-beta2, human recombinant	4340-5, 50, 1000
TGF-beta2, human recombinant	4343-5
TGF-beta3, human recombinant	4344-5
TNF-alpha, human recombinant	1050-10, 50, 1000
TNF-alpha, murine recombinant	1051-10, 1000
TNF-alpha, rat recombinant	1052-10, 1000
VEGF165, human recombinant	4363-10, 50, 1000
VEGF165, murine recombinant	4364-10, 50, 1000
VEGF165, rat recombinant	4365-10, 50, 1000
VEGI/TNFSF-15, human recombinant	4966-10
Visfatin, human recombinant	4907-10, 50, 1000
Visfatin, mouse recombinant	4908-10, 50, 1000
Visfatin, rat recombinant	4909-10, 50, 1000