

# 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

Product Name	Cat. No.	Size
Actin Polymerization/ Depolymerization Assay Kit (Fluorometric)	K457	100 Assays
Adiponectin (human) Elisa Assay Kit	K4901	96 Assays
Adiponectin (mouse) Elisa Assay Kit	K4902	96 Assays
Adiponectin (rat) Elisa Assay Kit	K4903	96 Assays
Resistin (human) Serum ELISA Kit	K4919	100 Assays
Resistin (mouse) Serum ELISA Kit	K4920	100 Assays
Vaspin (human) Serum ELISA Kit	K4917	100 Assays
Visfatin (human) Elisa Assay Kit	K4907	100 Assays

## Antibodies to Adipokines

Product Name	Cat. No.	Size
Adiponectin Antibody	5901	50 $\mu$ g, 250 $\mu$ g
Adiponectin Antibody	5902	50 $\mu$ g, 250 $\mu$ g
Adiponectin Antibody	5903	50 $\mu$ g, 250 $\mu$ g
Adiponectin Antibody (Clone MADI-1147)	5900	50 $\mu$ g
AdipoR1 Antibody	3940	30 $\mu$ g, 200 $\mu$ g
IL-1 beta Antibody	5128	30 $\mu$ g, 100 $\mu$ g

155 S. Milpitas Blvd, Milpitas, CA 95035

T: 408-493-1800 F: 408-493-1801

Toll Free: 800-891-9699 (US Only)



Product Name	Cat. No.	Size
IL-1 beta Antibody	5129	30 µg, 100 µg
IL-6 Antibody	5143	30 µg, 100 µg
IL-6 Antibody	5144	100 µg
IL-6 Antibody	5145	100 µg
IL-8 Antibody	5149	100 µg
Leptin Antibody	5366	30 µg, 100 µg
Leptin Antibody	5367	30 µg, 100 µg
Leptin Receptor Antibody	5582	100 µg
MCP-1 Antibody	5222	30 µg, 100 µg
MCP-1 Antibody	5225	100 µg
MIF Antibody	5571	30 µg, 100 µg
Resistin Antibody	5997	30 µg, 100 µg
Resistin Antibody	5999	30 µg, 100 µg
TNF-alpha Antibody	3052R	30 µg, 100 µg
TNF-alpha Antibody	3054	30 µg, 100 µg
VEGF Antibody	5363	30 µg, 100 µg
VEGF Antibody	5365	30 µg, 100 µg
VEGF Antibody	5364R	30 µg, 100 µg

### Adipokines

Product Name	Cat. No.	Size
Adiponectin, human recombinant	4901	25 µg, 100 µg, 1 mg
Adiponectin, murine recombinant	4902	25 µg, 100 µg, 1 mg
Adiponectin, rat recombinant	4903	25 µg, 100 µg, 1 mg
gAcrp30/Adiponectin, human recombinant	4591	25 µg, 100 µg, 1 mg
gAcrp30/Adiponectin, murine recombinant	4592	25 µg, 100 µg, 1 mg
gAcrp30/Adiponectin, rat recombinant	4593	25 µg, 100 µg, 1 mg
IL-1 beta, human recombinant	4128	10 µg, 50 µg, 1 mg
IL-1 beta, murine recombinant	4129	10 µg, 50 µg, 1 mg
IL-1 beta, rat recombinant	4130	10 µg, 50 µg, 1 mg
IL-10, human recombinant	4155	10 µg, 50 µg, 1 mg
IL-10, murine recombinant	4156	10 µg, 50 µg, 1 mg
IL-6, human recombinant	4143	20 µg, 100 µg, 1 mg
IL-6, murine recombinant	4144	10 µg, 50 µg, 1 mg
IL-6, rat recombinant	4145	10 µg, 50 µg, 1 mg
IL-8 (72 a.a.), human recombinant	4149M	25 µg, 1 mg
IL-8 (77 a.a.), human recombinant	4149	25 µg, 1 mg
Leptin, human recombinant	4366	200 µg, 1 mg, 5 mg, 10 mg
Leptin, murine recombinant	4367	200 µg, 1 mg, 5 mg
Leptin, rat recombinant	4368	200 µg, 1 mg, 5 mg
MCP-1 (MCAF), human recombinant	4222	20 µg, 100 µg, 1 mg
MCP-1 (MCAF), rat recombinant	4224	10 µg, 1 mg
MIF, human recombinant	4984	10 µg, 100 µg, 1 mg
NGF-beta, human recombinant	4303	20 µg, 1 mg
NGF-beta, murine recombinant	4304	5 µg, 20 µg, 100 µg, 1 mg
Resistin, human recombinant	4559	25 µg, 100 µg, 1 mg
Resistin, murine recombinant	4560	25 µg, 100 µg, 1 mg

Product Name	Cat. No.	Size
Resistin, rat recombinant	4561	25 µg, 100 µg, 1 mg
TGF-beta1, human recombinant	4342	5 µg, 50 µg, 500 µg
TGF-beta2, human recombinant	4340	5 µg, 50 µg, 1 mg
TGF-beta2, human recombinant	4343	5 µg
TGF-beta3, human recombinant	4344	5 µg, 50 µg, 500 µg
TNF-alpha, human recombinant	1050	10 µg, 50 µg, 1 mg
TNF-alpha, murine recombinant	1051	10 µg, 50 µg, 1 mg
TNF-alpha, rat recombinant	1052	10 µg, 50 µg, 1 mg
VEGF165, human recombinant	4363	10 µg, 50 µg, 1 mg
VEGF165, murine recombinant	4364	10 µg, 50 µg, 1 mg
VEGF165, rat recombinant	4365	10 µg, 50 µg, 1 mg
VEGI/TNFSF-15, human recombinant	4966	10 µg, 50 µg, 1 mg
Visfatin, human recombinant	4907	10 µg, 50 µg, 1 mg
Visfatin, mouse recombinant	4908	10 µg, 50 µg, 1 mg
Visfatin, rat recombinant	4909	10 µg, 50 µg, 1 mg

Please visit [www.BioVision.com](http://www.BioVision.com) for a comprehensive overview on our products!