

Leptin Monoclonal Antibody (3G7)

Catalog NumberMA1-22083

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human
Host/Isotope	Mouse / IgG1	Tested Applications	Dilution *
Class	Monoclonal		
Type	Antibody		
Clone	3G7	ELISA (ELISA)	Assay-dependent
Immunogen	Recombinant full length protein.	Western Blot (WB)	Assay-dependent
Conjugate	Unconjugated	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Form	Liquid		
Concentration	3.3 mg/mL		
Purification	Protein A		
Storage buffer	PBS, pH 7.4		
Contains	0.09% sodium azide		
Storage Conditions	4° C		

Product specific information

MA1-22083 detects leptin in human samples.

Background/Target Information

Leptin is a 167 amino acid long protein hormone with important effects in regulating body weight, metabolism and reproductive function. Leptin is approximately 16 kDa in mass and encoded by the obese (ob) gene. Leptin is expressed predominantly by adipocytes, which fits with the idea that body weight is sensed as the total mass of fat in the body. Smaller amounts of leptin are also secreted by cells in the epithelium of the stomach and in the placenta. Leptin receptors are highly expressed in areas of the hypothalamus known to be important in regulating body weight, as well as in T lymphocytes and vascular endothelial cells. Leptin's effects on body weight are mediated through effects on hypothalamic centers that control feeding behavior and hunger, body temperature and energy expenditure. Leptin is involved in regulating food intake, energy expenditure, and adiposity through hypothalamic leptin receptors. Leptin promotes hematopoiesis, angiogenesis, wound healing, inflammation, immune responses, influences pubertal development and fetal growth. Studies have investigated the role of leptin in obesity, anorexia nervosa, insulin resistance, and hypertension. Leptin also has thermogenic actions and regulates enzymes of fatty acid oxidation. Severe hereditary obesity in rodents and humans can be caused by defects in leptin production.

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