

Product datasheet for **DM2007**

Leptin (LEP) Mouse Monoclonal Antibody [Clone ID: LEP-02]

Product data:

Product Type:	Primary Antibodies
Clone Name:	LEP-02
Applications:	ELISA, WB
Recommended Dilution:	ELISA. Western Blot.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	The Human Leptin is a recombinant protein produced in E.coli.
Specificity:	The Anti Human Leptin Antibody, Clone LEP-02 is a Mouse monoclonal antibody against Human recombinant Human Leptin. It does not react with Mouse.
Formulation:	0.05M phosphate buffer, 0.1M NaCl, pH 7.2. Azide Free State: Aff - Purified State: Lyophilized purified IgG fraction
Reconstitution Method:	Restore with 0.1 ml of deionized water
Concentration:	1.0 mg/ml (after reconstitution)
Purification:	Affinity Chromatography on Immobilized Protein G
Conjugation:	Unconjugated
Storage:	Store lyophilized (preferably in a desiccator) at -20°C and in aliquots at -80°C. Reconstituted antibody can be stored at 2-8°C for a limited period of time; it does not show decline in activity after two weeks at 4°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	leptin
Database Link:	Entrez Gene 3952 Human P41159



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Background:

Leptin, the product of the ob (obese) gene, is a single-chain 16 kDa protein consisting of 146 amino acid residues. Leptin is produced mainly in the adipose tissue, and is considered to play an important role in appetite control, fat metabolism and body weight regulation. It targets the central nervous system, particularly hypothalamus, affecting food intake. The primary effect of leptin appears to be mediated by leptin receptors expressed mainly in the hypothalamus. In humans, leptin levels correlate with body mass index (BMI) and percentage body fat, and are elevated even in obese individuals. Leptin has a dual action; it decreases the appetite and increases energy consumption, causing more fat to be burned. Leptin is secreted in circadian fashion with nocturnal rise in both lean and obese patients. Mutations of the ob gene resulting in leptin deficiency are the cause of obesity in the ob/ob mice. Endogenous leptin can normalize their body weight. In contrast, high levels of leptin in obese human subjects point to an insensitivity to endogenous leptin. Other factors in addition to the amount of body fat appear to regulate leptin action: insulin, glucocorticoids, catecholamines and sex hormones. Studies have shown that leptin may be linked to reproductive function.

Synonyms:

LEP, OB, OBS, Obesity factor, Obese protein