

Product Information

Leptin rat

recombinant, expressed in *Escherichia coli*

Catalog Number **L5037**

Storage Temperature -20°C

Product Description

Leptin (OB) is a 16 kDa, 147 amino acid non-glycosylated peptide. It was originally hypothesized to be some sort of "satiety factor", and although the relationship appears to be much more complex than that term would suggest, it has been shown to be intimately involved in the regulation of energy homeostasis,^{1,2} as well as the neuroendocrine and reproductive systems.² The amino acid sequence of leptin is highly conserved, with human and mouse leptin sharing 85% homology.¹

Leptin is expressed primarily in adipose tissue, and until recently, was hypothesized to be produced solely by adipocytes. However, studies have shown that leptin is produced by other cell types, including placental trophoblasts and amnion cells, and is believed to play a role in normal pregnancy development.³

The product is lyophilized from a 0.2 μm filtered solution of 4.5 mM NaHCO_3 with no carrier protein.

The biological activity of Leptin is measured by its ability to induce proliferation of Leptin-dependent human OB-R transfected murine BAF3 cells.

Purity: $\geq 97\%$ (SDS-PAGE)

ED_{50} : ≤ 0.8 ng/mL

Endotoxin: ≤ 1 EU/ μg Leptin

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute the contents of the vial by adding sterile 20 mM Tris HCl, pH 8.0, to prepare a working stock solution of 1 mg/mL.

Storage/Stability

Prior to reconstitution, product can be stored at -20°C for greater than 6 months. After reconstitution, store at $2-8^{\circ}\text{C}$ for 1 month. For extended storage, freeze in working aliquots at -70°C or -20°C . Repeated freezing and thawing is not recommended.

References

1. Schulz-Knappe, *et al.*, *J. Exp. Med.*, **183**, 29 (1996).
2. Matsushima, K. *et al.*, *J. Exp. Med.*, **169**, 1485 (1989).
3. Masuzaki, H. *et al.*, *Nature Medicine*, **3**, 1029 (1997).

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