

Product Information

Leptin from mouse

recombinant, expressed in *E. coli*

Catalog Number **L3772**

Storage Temperature -20°C

Product Description

Leptin (OB) is a non-glycosylated, 16 kDa, 147 amino acid peptide. It has been shown to be involved in the regulation of energy homeostasis as well regulation in the neuroendocrine and reproductive systems.^{1,2} The amino acid sequence of leptin is highly conserved. The human and mouse leptin sequences show 85% homology.¹

Leptin is expressed primarily in adipose tissue and until recently was believed to be produced solely by adipocytes. However, recent 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

This product is lyophilized from a 0.2 μm -filtered solution with 0.0045 mM NaHCO_3 .

Purity: $\geq 98\%$ (SDS-PAGE)

The biological activity of this recombinant human leptin product is measured by its ability to induce proliferation of leptin-dependent, human OB-R-transfected murine BAF3 cells.

EC_{50} : ≤ 1.0 ng/mL

The EC_{50} is defined as the effective concentration of leptin that elicits a 50% increase in cell growth in a cell based bioassay.

Endotoxin level: ≤ 1.0 EU/mg (LAL)

Precautions and Disclaimer

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

It is recommended that sterile 20 mM Tris/HCl, pH 8.0, be added to the lyophilized vial to prepare a working stock solution of 1 mg/mL.

Storage/Stability

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

References

1. Schulz-Knappe, P. 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).

SBC,PCG,SC,PHC,MAM 01/20-1