

## **Product datasheet for TP720054L**

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# Leptin (LEP) (NM\_000230) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human leptin (LEP)

Species: Human
Expression Host: E. coli

**Expression cDNA Clone** 

Val22-Cys167

or AA Sequence:

Tag: Tag Free
Predicted MW: 16 kDa

**Concentration:** lot specific

**Purity:** >95% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** Lyophilized from a 0.2 um filtered solution of PBS, PH7.4.

**Endotoxin:** < 0.1 EU per μg protein as determined by LAL test

**Reconstitution Method:** Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the

lyophilized protein in ddH2O. It is not recommended to reconstitute a concentration less than 100  $\mu$ g/ml. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3

weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

Stability: Stable for at least 6 months from date of receipt under proper storage and handling

conditions.

RefSeq: <u>NP 000221</u>

**Locus ID:** 3952

**UniProt ID:** <u>P41159</u>, <u>A4D0Y8</u>

**Cytogenetics:** 7q32.1

**Synonyms:** LEPD; OB; OBS





Summary:

This gene encodes a protein that is secreted by white adipocytes into the circulation and plays a major role in the regulation of energy homeostasis. Circulating leptin binds to the leptin receptor in the brain, which activates downstream signaling pathways that inhibit feeding and promote energy expenditure. This protein also has several endocrine functions, and is involved in the regulation of immune and inflammatory responses, hematopoiesis, angiogenesis, reproduction, bone formation and wound healing. Mutations in this gene and its regulatory regions cause severe obesity and morbid obesity with hypogonadism in human patients. A mutation in this gene has also been linked to type 2 diabetes mellitus development. [provided by RefSeq, Aug 2017]

**Protein Families:** 

Druggable Genome, Secreted Protein

**Protein Pathways:** 

Adipocytokine signaling pathway, Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction

### **Product images:**

