

## Product datasheet for **TP723267**

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

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human leptin (LEP).
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MVPIQKVQDD TKTLIKTIVT RINDISHTQS VSSKQKV TGL DFIPGLHPIL T LSKMDQTLA VYQQILTSMP SRNVIQISND LENLRDLLHV LAFSKSCHLP WASGLET LDS LGGVLEASGY STEVALSRL QGSLQDMLWQ LDLSPGC
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 μM filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Bioactivity:	PeproTech's human Leptin is biologically active in the ob/ob mouse obesity model. The ob/ob mice were treated via intraperitoneal injection once daily at a dose of 5 ug Leptin/gm of body weight for 7 days. Significant effects on body weight, food consumption, and plasma glucose levels were observed to saline-treated controls.
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (< 1 EU/μg)
Storage:	Store at -80°C.
Stability:	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
RefSeq:	<u><a href="#">NP_000221</a></u>
Locus ID:	3952
UniProt ID:	<u><a href="#">P41159</a></u> , <u><a href="#">A4D0Y8</a></u>
RefSeq Size:	3444
Cytogenetics:	7q32.1
RefSeq ORF:	501
Synonyms:	LEPD; OB; OBS



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**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:**