

## Product datasheet for **SC120021**

### Leptin (LEP) (NM\_000230) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Leptin (LEP) (NM_000230) Human Untagged Clone
Tag:	Tag Free
Symbol:	Leptin
Synonyms:	LEPD; OB; OBS
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM\_000230 edited  
ATGCATTGGGGAACCCTGTGCGGATTCTGTGGCTTTGGCCCTATCTTTTCTATGTCCAA  
GCTGTGCCCATCCAAAAAGTCCAAGATGACACCAAAACCCTCATCAAGACAATTGTCACC  
AGGATCAATGACATTTACACACGAGTCAGTCTCCTCCAACAGAAAGTCACCGTTTG  
GACTTCATTCTGGGCTCCACCCATCCTGACCTTATCCAAGATGGACCAGACACTGGCA  
GTCTACCAACAGATCCTCACCAGTATGCCTTCCAGAAACGTGATCCAAATATCCAACGAC  
CTGGAGAACCTCCGGGATCTTCTTACGTGCTGGCCTTCTAAGAGCTGCCACTTGCC  
TGGGCCAGTGGCCTGGAGACCTTGGACAGCCTGGGGGTGTCCTGGAAGCTTCAGGCTAC  
TCCACAGAGGTGGTGGCCCTGAGCAGGCTGCAGGGTCTCTGCAGGACATGCTGTGGCAG  
CTGGACCTCAGCCCTGGGTGCTGA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_000230 unedited CCGGCCAGATTTGTATACGACTCACTATAGGCGGCCGCGAAATTCGCACGAGGTTGCAAG GCCCAAAAAGCCCATCTGGGAAGGAAAATGCTTGGGGAACCTGTGCGGATTCTTGTGG CTTTGGCCCTATCTTTTCTATGTCCAAGCTGTGCCATCCAAAAAGTCCAAGATGACACC AAAACCCTCATCAAGACAATTGTCACCAGGATCAATGACATTTACACACGCAGTCAGTC TCCTCCAAACAGAAAGTCACCGGTTTGGACTTCATTCTGGGCTCCACCCATCCTGACC TTATCCAAGATGGACCAGACACTGGCAGTCTACCAACAGATCCTCACCAGTATGCCTTCC AGAAACGTGATCCAAATATCCAACGACCTGGAGAACCTCCGGGATCTTCTCACGTGCTG GCCTTCTCTAAGAGCTGCCACTTGCCCTGGGCCAGTGGCCTGGAGACCTTGGACAGCCTG GGGGGTGTCTGGAAGCTTCAGGCTACTCCACAGAGGTGGTGGCCCTGAGCAGGCTGCAG GGGTCTCTGCAGGACATGCTGTGCAGCTGGACCTCAGCCCTGGGTGCTGAGGCCTTGA GGTCACTTCTGCAAGGACTACGTTAAGGGAAGGAACTCTGGCTTCCAGGTATCTCCA GGATTGAAGAGCATTGCATGGACACCCCTATCCAGGACTCTGTCAATTTCCCTGACTCC TCTAAGCCACTCTNCAAAGGCATAAGACCCTAAGCCTNCTTTTGCTTGAACCAAAGAT ATATACACAGGGATCCTATTCTCACCAGGAAGGGGTCCACCCAGCANAGAGTGGGCTGC ATCTGGGATCCACCAGGTCTTCAAGCATAACAAGAGTGTCTTGNCCTCTTGACCATC TCCNCTACTGATGCCTCATGTGACCAGGGGTGATTCANAGAGCANAGGGNTAGCANACCT TNG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000230
<b>Insert Size:</b>	3500 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_000230.1</a></u> , <u><a href="#">NP_000221.1</a></u>
<b>RefSeq Size:</b>	3426 bp
<b>RefSeq ORF:</b>	504 bp
<b>Locus ID:</b>	3952
<b>UniProt ID:</b>	<u><a href="#">P41159</a></u>
<b>Cytogenetics:</b>	7q32.1
<b>Domains:</b>	Leptin

<b>Protein Families:</b>	Druggable Genome, Secreted Protein
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction
<b>Gene Summary:</b>	<p>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]</p>