

## Product datasheet for **MC222413**

### Lepr (NM\_001122899) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lepr (NM_001122899) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Lepr
Synonyms:	db; diabetes; Leprb; LEPROT; Modb1; OB-RGRP; obese-like; obl; Obr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >MC222413 representing NM\_001122899  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATGTGTCAGAAATTCTATGTGGTTTTGTACTGGAATTTCTTTATGTGATAGTGCACCTTAACC  
 TGGCATATCCAATCTCTCCCTGGAAATTTAAGTTGTTTTGTGGACCACCGAACACAACCGATGACTCCTT  
 TCTCTCACCTGCTGGAGCCCCAAACAATGCCTCGGCTTTGAAGGGGGCTTCTGAAGCAATTGTTGAAGCT  
 AAATTTAATCAAGTGGTATCTACGTTCTGAGTTATCCAAAACAGTCTTCCACTGTTGCTTTGGGAATG  
 AGCAAGGTCAAACCTGCTCTGCACTCACAGACAACACTGAAGGGAAGACTGGCTTCAGTAGTGAAGGC  
 TTCAGTTTTTCGCCAGCTAGGTGTAACACTGGGACATAGAGTGTGGATGAAAGGGGACTTGACATTATTC  
 ATCTGTCATATGGAGCCATTACCTAAGAACCCTTCAAGAATTATGACTCTAAGGTCCATCTTTTATATG  
 ATCTGCCTGAAGTCATAGATGATTCGCCTCTGCCCCACTGAAAGACAGCTTTCAGACTGTCCAATGCAA  
 CTGCAGTCTTCGGGGATGTGAATGTCATGTGCCGGTACCCAGAGCCAACTCAACTACGCTCTTCTGATG  
 TATTTGAAATACATCTGCCGGTGTGAGTTTTAGTCACCTCTGATGTCAGCTGCAGCCATGCTTGTG  
 TGAACCCGATCCACCCTTAGGTTTGCATATGGAAGTCACAGATGATGGTAAATTTAAAGATTTCTTGGGA  
 CAGCCAAACAATGGCACCATTTCCGCTTCAATATCAGGTGAAATTTAGAGAATTTACAAATGTAAGA  
 GAGGCTGCTGAAATGTCTCAGCTACATCTCTGCTGGTAGACAGTGTGCTTCTGGATCTTCATATGAGG  
 TCCAGGTGAGGAGCAAGAGACTGGATGGTTCAGGAGTCTGGAGTACTGGAGTTCACCTCAAGCTTTTAC  
 CACACAAGATGTTGTGATTTTCCACCCAAAATCTGACTAGTGTGGATCGAATGCTTCTTTTTCATTGC  
 ATCTACAAAAACGAAAACCAGATTATCTCTCAAACAGATAGTTTGGTGGAGGAATCTAGCTGAGAAAA  
 TCCCTGAGATACAGTACAGCATTGTGAGTGACCGAGTTAGCAAAGTTACCTTCTCAAACCTGAAAGCCAC  
 CAGACCTCGAGGGAAGTTTACCTATGACGCAGTGTACTGCTGCAATGAGCAGGCGTGCCATCACCGCTAT  
 GCTGAATTATACGTGATCGATGTCAATATCAATATATCATGTGAAACTGACGGTACTTAACTAAAATGA  
 CTTGCAGATGGTCACCCAGCACAATCCAATCACTAGTGGGAAGCACTGTGCAGCTGAGGTATCACAGGCG  
 CAGCCTGTATTGCTGATAGTCCATCTATTATCCTACGTCTGAGCCAAAAACTGCGTCTTACAGAGA  
 GACGGCTTTTATGAATGTGTTTTCCAGCCAATCTTTCTATTATCTGGCTATACAATGTGGATCAGGATCA  
 ACCATTCTTTAGGTTCACTTGACTCGCCACCAACGTGTCTTCTGACTCCGTAGTAAAACCACTACC  
 TCCATCTAACGTAAAAGCAGAGATTACTGTAACACTGGATTATTGAAAGTATCTTGGGAAAAGCCAGTC  
 TTTCCGGAGAATAACCTTCAATCCAGATTCGATATGGCTTAAGTGGAAAAGAAATACAATGGAAGACAC  
 ATGAGGTATTCGATGCAAAGTCAAAGTCTGCCAGCCTGCTGGTGTGAGACCTCTGTGAGCTATGTGGT  
 CCAGGTTCTGCTGCCGGCGGTTGGATGGACTAGGATATTGGAGTAATTGGAGCAGTCCAGCCTATACGCTT  
 GTCATGGATGTAAGGTTCTATGAGAGGGCTGAATTTTGGAGAAAAATGGATGGGGACGTTACTAAAA  
 AGGAGAGAAAATGTCACCTTGCTTTGGAAGCCCCTGACGAAAAATGACTCACTGTGTAGTGTGAGGAGGTA  
 CGTGGTGAAGCATCGTACTGCCACAATGGGACGTGGTCAGAAGATGTGGGAAATCGGACCAATCTCACT  
 TTCCTGTGGACAGAACCAGCGCACACTGTTACAGTTCTGGCTGTCAATCCCTCGGCGCTTCCCTTGTA  
 ATTTTAACTTACCTTCTCATGGCCATGAGTAAAGTGTGCTGTGGAGTCACTCAGTGCTTATCCCCT  
 GAGCAGCAGCTGTGTATCCTTTCTGGACACTGTCACCTGATGATTATAGTCTGTTATATCTGGTTATT  
 GAATGGAAGATCCTTAATGAAGATGATGGAATGAAGTGGCTTAGAATCCCTCGAATGTTAAAAAGTTTT  
 ATATCCACGATAATTTTATCCCATCGAATAATCAGTTTAGTCTTTACCCAGTATTTATGGAAGGAGT  
 TGGAAAACCAAAGATAATTAATGGTTTACCAAAGATGCTATCGACAAGCAGCAGAATGACGCAGGGCTG  
 TATGTCATTGTACCCATAATTTTCTCTGTGCTACTGCTCGGAACACTGTTAATTTACACCAGA  
 GAATGAAAAAGTTGTTTTGGGACGATGTTCCAAACCCCAAGAATTGTTCTGGGCACAAGGACTGAATTT  
 CCAAAGAGAACGGACACTTT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001122899

<b>Insert Size:</b>	2685 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_001122899.1</a></u> , <u><a href="#">NP_001116371.1</a></u>
<b>RefSeq Size:</b>	5571 bp
<b>RefSeq ORF:</b>	2685 bp
<b>Locus ID:</b>	16847
<b>UniProt ID:</b>	<u><a href="#">P48356</a></u>
<b>Cytogenetics:</b>	4 46.96 cM

**Gene Summary:**

Receptor for hormone LEP/leptin (Probable) (PubMed:11861497). On ligand binding, mediates LEP central and peripheral effects through the activation of different signaling pathways such as JAK2/STAT3 and MAPK cascade/FOS (PubMed:10799542, PubMed:25383904, PubMed:11923481, PubMed:11861497). In the hypothalamus, LEP acts as an appetite-regulating factor that induces a decrease in food intake and an increase in energy consumption by inducing anorexigenic factors and suppressing orexigenic neuropeptides, also regulates bone mass and secretion of hypothalamo-pituitary-adrenal hormones (PubMed:10660043, PubMed:12594516). In the periphery, increases basal metabolism, influences reproductive function, regulates pancreatic beta-cell function and insulin secretion, is pro-angiogenic and affects innate and adaptive immunity (PubMed:25383904, PubMed:11923481). Control of energy homeostasis and melanocortin production (stimulation of POMC and full repression of AgRP transcription) is mediated by STAT3 signaling, whereas distinct signals regulate NPY and the control of fertility, growth and glucose homeostasis (PubMed:12594516). Involved in the regulation of counter-regulatory response to hypoglycemia by inhibiting neurons of the parabrachial nucleus (PubMed:25383904). Has a specific effect on T lymphocyte responses, differentially regulating the proliferation of naive and memory T-cells. Leptin increases Th1 and suppresses Th2 cytokine production (PubMed:9732873).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) has an alternate 3' exon, as compared to variant 1. The resulting isoform (3) has a different and shorter C-terminus, as compared to isoform 1.

Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.