

Product datasheet for **MC222412**

Lepr (NM_010704) Mouse Untagged Clone

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Lepr (NM_010704) 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: >MC222412 representing NM_010704
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATGTGTCAGAAATTCTATGTGGTTTTGTACTGGGAATTTCTTTATGTGATAGTGCACCTTAACC
 TGGCATATCCAATCTCTCCCTGGAAATTTAAGTTGTTTTGTGGACCACCGAACACAACCGATGACTCCTT
 TCTCTCACCTGCTGGAGCCCCAAACAATGCCTCGGCTTTGAAGGGGGCTTCTGAAGCAATTGTTGAAGCT
 AAATTTAATCAAGTGGTATCTACGTTCTGAGTTATCCAAAACAGTCTTCCACTGTTGCTTTGGGAATG
 AGCAAGGTCAAACCTGCTCTGCACTCACAGACAACACTGAAGGGAAGACACTGGCTTCAGTAGTGAAGGC
 TTCAGTTTTTCGCCAGCTAGGTGTAACACTGGGACATAGAGTGTGGATGAAAGGGGACTTGACATTATTC
 ATCTGTCATATGGAGCCATTACCTAAGAACCCTTCAAGAATTATGACTCTAAGGTCCATCTTTTATATG
 ATCTGCCTGAAGTCATAGATGATTCGCCTCTGCCCCACTGAAAGACAGCTTTCAGACTGTCCAATGCAA
 CTGCAGTCTTCGGGGATGTGAATGTCATGTGCCGGTACCCAGAGCCAACTCAACTACGCTCTTCTGATG
 TATTTGAAAATCACATCTGCCGGTGTGAGTTTTAGTCACCTCTGATGTCAGTGCAGCCATGCTTGTG
 TGAACCCGATCCACCCTTAGGTTTGCATATGGAAGTCACAGATGATGGTAAATTTAAAGATTTCTTGGGA
 CAGCCAAACAATGGCACCATTTCCGCTTCAATATCAGGTGAAATTTAGAGAATTTACAATTTGAAGA
 GAGGCTGCTGAAATGTCTCAGCTACATCTCTGCTGGTAGACAGTGTGCTTCTGGATCTTCATATGAGG
 TCCAGGTGAGGAGCAAGAGACTGGATGGTTCAGGAGTCTGGAGTACTGGAGTTCACCTCAAGCTTTTAC
 CACACAAGATGTTGTGATTTTCCACCCAAAATTTGACTAGTGTGGATCGAATGCTTCTTTTTCATTGC
 ATCTACAAAAACGAAAACCAGATTATCTCTCAAACAGATAGTTTGGTGGAGGAATCTAGCTGAGAAAA
 TCCCTGAGATACAGTACAGCATTGTGAGTGACCGAGTTAGCAAAGTTACCTTCTCAAACGAAAACCCAC
 CAGACCTCGAGGGAAGTTTACCTATGACGCAGTGTACTGCTGCAATGAGCAGGCGTGCCATCACCGCTAT
 GCTGAATTATACGTGATCGATGTCAATATCAATATATCATGTGAAACTGACGGTACTTAACTAAAATGA
 CTTGCAGATGGTCACCCAGCACAAATCCAATCACTAGTGGGAAGCACTGTGCAGCTGAGGTATCACAGGCG
 CAGCCTGTATTGCTGATAGTCCATCTATTATCCTACGTCTGAGCCAAAAACTGCGTCTTACAGAGA
 GACGGCTTTTATGAATGTGTTTTCCAGCCAATCTTTCTATTATCTGGCTATACAATGTGGATCAGGATCA
 ACCATTCTTTAGGTTCACTTGACTCGCCACCAACGTGTCTTCTGACTCCGTAGTAAAACCACTACC
 TCCATCTAACGTAAAAGCAGAGATTACTGTAACACTGGATTATTGAAAGTATCTTGGGAAAAGCCAGTC
 TTTCCGGAGAATAACCTTCAATCCAGATTCGATATGGCTTAAGTGGAAAAGAAATACAATGGAAGACAC
 ATGAGGTATTCGATGCAAAGTCAAAGTCTGCCAGCCTGCTGGTGTGAGACCTCTGTGAGCTATGTGGT
 CCAGGTTTCGCTGCCGGCGGTTGGATGGACTAGGATATTGGAGTAATTGGAGCAGTCCAGCCTATACGCTT
 GTCATGGATGTAAGGTTCTATGAGAGGGCTGAATTTTGGAGAAAAATGGATGGGGACGTTACTAAAA
 AGGAGAGAAAATGTCACCTTGCTTTGGAAGCCCCTGACGAAAAATGACTCACTGTGTAGTGTGAGGAGGTA
 CGTGGTGAAGCATCGTACTGCCACAATGGGACGTGGTCAGAAGATGTGGGAAATCGGACCAATCTCACT
 TTCCTGTGGACAGAACCAGCGCACACTGTTACAGTTCTGGCTGTCAATCCCTCGGCGTTCCTTGTGA
 ATTTTAACTTACCTTCTCATGGCCATGAGTAAAGTGAAGTGTGGAGTCACTCAGTGCTTATCCCT
 GAGCAGCAGCTGTGTATCCTTTCTGGACACTGTCACCTGATGATTATAGTCTGTTATATCTGGTTATT
 GAATGGAAGATCCTTAATGAAGATGATGGAATGAAGTGGCTTAGAATCCCTCGAATGTTAAAAAGTTTT
 ATATCCACGATAATTTTATCCCATCGAATAATCAGTTTAGTCTTTACCCAGTATTTATGGAAGGAGT
 TGGAAAACCAAAGATAATTAATGGTTTACCAAAGATGCTATCGACAAGCAGCAGAATGACGCAGGGCTG
 TATGTCATTGTACCCATAATTTTCTCTGTGCTACTGCTCGGAACACTGTTAATTTACACCAGA
 GAATGAAAAGTTGTTTTGGGACGATGTTCCAAACCCCAAGAATTGTTCTGGGCACAAGGACTGAATTT
 CCAAAGGTCAGTGT**TAA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_010704

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| Insert Size: | 2679 bp |
| OTI Disclaimer: | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info</p> |
| Components: | 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). |
| Reconstitution Method: | <ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.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. |
| RefSeq: | NM_010704.2 , NP_034834.1 |
| RefSeq Size: | 3407 bp |
| RefSeq ORF: | 2679 bp |
| Locus ID: | 16847 |
| UniProt ID: | P48356 |
| Cytogenetics: | 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 (2) lacks the 3' exon but has an alternate 3' segment, as compared to variant 1. The resulting isoform (2) has a different and shorter C-terminus, as compared to isoform 1.