OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC223793

Lepr (NM_146146) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lepr (NM_146146) 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)

Fully Sequenced ORF:

>MC223793 representing NM_146146
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATGTGTCAGAAATTCTATGTGGTTTTGTTACACTGGGAATTTCTTTATGTGATAGCTGCACTTAACC
TGGCATATCCAATCTCTCCCTGGAAATTTAAGTTGTTTTGTGGACCACCGAACACAACCGATGACTCCTT
TCTCTCACCTGCTGGAGCCCCAAACAATGCCTCGGCTTTGAAGGGGGCTTCTGAAGCAATTGTTGAAGCT
AAATTTAATTCAAGTGGTATCTACGTTCCTGAGTTATCCAAAACAGTCTTCCACTGTTGCTTTGGGAATG
AGCAAGGTCAAAACTGCTCTGCACTCACAGACAACACTGAAGGGAAGACACTGGCTTCAGTAGTGAAGGC
TTCAGTTTTTCGCCAGCTAGGTGTAAACTGGGACATAGAGTGCTGGATGAAAGGGGACTTGACATTATTC
ATCTGTCATATGGAGCCATTACCTAAGAACCCCTTCAAGAATTATGACTCTAAGGTCCATCTTTTATATG
ATCTGCCTGAAGTCATAGATGATTCGCCTCTGCCCCCACTGAAAGACAGCTTTCAGACTGTCCAATGCAA
CTGCAGTCTTCGGGGATGTGAATGTCATGTGCCGGTACCCAGAGCCAAACTCAACTACGCTCTTCTGATG
TATTTGGAAATCACATCTGCCGGTGTGAGTTTTCAGTCACCTCTGATGTCACTGCAGCCCATGCTTGTTG
TGAAACCCGATCCACCCTTAGGTTTGCATATGGAAGTCACAGATGATGGTAATTTAAAGATTTCTTGGGA
CAGCCAAACAATGGCACCATTTCCGCTTCAATATCAGGTGAAATATTTAGAGAATTCTACAATTGTAAGA
GAGGCTGCTGAAATTGTCTCAGCTACATCTCTGCTGGTAGACAGTGTGCTTCCTGGATCTTCATATGAGG
TCCAGGTGAGGAGCAAGAGACTGGATGGTTCAGGAGTCTGGAGTGACTGGAGTTCACCTCAAGTCTTTAC
CACACAAGATGTTGTGTATTTTCCACCCAAAATTCTGACTAGTGTTGGATCGAATGCTTCTTTTCATTGC
ATCTACAAAAACGAAAACCAGATTATCTCCTCAAAACAGATAGTTTGGTGGAGGAATCTAGCTGAGAAAA
TCCCTGAGATACAGTACAGCATTGTGAGTGACCGAGTTAGCAAAGTTACCTTCTCCAACCTGAAAGCCAC
CAGACCTCGAGGGAAGTTTACCTATGACGCAGTGTACTGCTGCAATGAGCAGGCGTGCCATCACCGCTAT
GCTGAATTATACGTGATCGATGTCAATATCAATATATCATGTGAAACTGACGGGTACTTAACTAAAATGA
CTTGCAGATGGTCACCCAGCACAATCCAATCACTAGTGGGAAGCACTGTGCAGCTGAGGTATCACAGGCG
CAGCCTGTATTGTCCTGATAGTCCATCTATTCATCCTACGTCTGAGCCCAAAAACTGCGTCTTACAGAGA

View online »

GACGGCTTTTATGAATGTGTTTTCCAGCCAATCTTTCTATTATCTGGCTATACAATGTGGATCAGGATCA
ACCATTCTTTAGGTTCACTTGACTCGCCACCAACGTGTGTCCTTCCTGACTCCGTAGTAAAACCACTACC
TCCATCTAACGTAAAAGCAGAGATTACTGTAAACACTGGATTATTGAAAGTATCTTGGGAAAAGCCAGTC
TTTCCGGAGAATAACCTTCAATTCCAGATTCGATATGGCTTAAGTGGAAAAGAAATACAATGGAAGACAC
ATGAGGTATTCGATGCAAAGTCAAAGTCTGCCAGCCTGCTGGTGTCAGACCTCTGTGCAGTCTATGTGGT
CCAGGTTCGCTGCCGGCGGTTGGATGGACTAGGATATTGGAGTAATTGGAGCAGTCCAGCCTATACGCTT
GTCATGGATGTAAAAGTTCCTATGAGAGGGCCTGAATTTTGGAGAAAAATGGATGGGGACGTTACTAAAA
AGGAGAGAAATGTCACCTTGCTTTGGAAGCCCCTGACGAAAAATGACTCACTGTGTAGTGTGAGGAGGTA
CGTGGTGAAGCATCGTACTGCCCACAATGGGACGTGGTCAGAAGATGTGGGAAATCGGACCAATCTCACT
TTCCTGTGGACAGAACCAGCGCACACTGTTACAGTTCTGGCTGTCAATTCCCTCGGCGCTTCCCTTGTGA
ATTTTAACCTTACCTTCTCATGGCCCATGAGTAAAGTGAGTGCTGTGGAGTCACTCAGTGCTTATCCCCT
GAGCAGCAGCTGTGTCATCCTTTCCTGGACACTGTCACCTGATGATTATAGTCTGTTATATCTGGTTATT
GAATGGAAGATCCTTAATGAAGATGATGGAATGAAGTGGCTTAGAATTCCCTCGAATGTTAAAAAGTTTT
ATATCCACGATAATTTTATTCCCATCGAGAAATATCAGTTTAGTCTTTACCCAGTATTTATGGAAGGAGT
TGGAAAACCAAAGATAATTAATGGTTTCACCAAAGATGCTATCGACAAGCAGCAGAATGACGCAGGGCTG
TATGTCATTGTACCCATAATTATTTCCTCTTGTGTCCTACTGCTCGGAACACTGTTAATTTCACACCAGA
GAATGAAAAAGTTGTTTTGGGACGATGTTCCAAACCCCAAGAATTGTTCCTGGGCACAAGGACTGAATTT
CCAAAAGCCTGAAACATTTGAGCATCTTTTTACCAAGCATGCAGAATCAGTGATATTTGGTCCTCTTCTT
CTGGAGCCTGAACCCATTTCAGAAGAAATCAGTGTCGATACAGCTTGGAAAAATAAAGATGAGATGGTCC
CAGCAGCTATGGTCTCCCTTCTTTTGACCACACCAGACCCTGAAAGCAGTTCTATTTGTATTAGTGACCA
GTGTAACAGTGCTAACTTCTCTGGGTCTCAGAGCACCCAGGTAACCTGTGAGGATGAGTGTCAGAGACAA
CCCTCAGTTAAATATGCAACTCTGGTCAGCAACGATAAACTAGTGGAAACTGATGAAGAGCAAGGGTTTA
TCCATAGTCCTGTCAGCAACTGCATCTCCAGTAATCATTCCCCACTGAGGCAGTCTTTCTCTAGCAGCTC
CTGGGAGACAGAGGCCCAGACATTTTTCCTTTTATCAGACCAGCAACCCACCATGATTTCACCACAACTT
TCATTCTCGGGGTTGGATGAGCTTTTGGAACTGGAGGGAAGTTTTCCTGAAGAAAATCACAGGGAGAAGT
CTGTCTGTTATCTAGGAGTCACCTCCGTCAACAGAAGAGAGAGTGGTGTGCTTTTGACTGGTGAGGCAGG
AATCCTGTGCACATTCCCAGCCCAGTGTCTGTTCAGTGACATCAGGATCCTCCAGGAGAGATGCTCACAC
TTTGTAGAAAATAATTTGAGTTTAGGGACCTCTGGTGAGAACTTTGTACCTTACATGCCCCAATTTCAAA
CCTGTTCCACGCACAGTCACAAGATAATGGAGAATAAGATGTGTGACTTAACTGTGTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1906_f01.zip

Restriction Sites: SgfI-MluI

ACCN: NM_146146

Insert Size: 3489 bp

OTI Disclaimer:	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. 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
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:	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_146146.2, NP_666258.2
RefSeq Size:	4126 bp
RefSeq ORF:	3489 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 anorexinogenic 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 (1) encodes the longest 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.