

Product datasheet for **MR206004**

Gpr137b (NM_031999) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpr137b (NM_031999) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpr137b
Synonyms:	A1788917; AU016435; AW546472; C80550; C80741; C730041E01; D13Abb1e; Tm7sf1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206004 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGGAGGCGCCTCCGTGGGAGCCGGTGCGCAATGACTCCCTGCCTCCACGCTGAGCCCCGCGGTGCCGC
CCTACGTGAAGCTCGGCCTACCGCGGTCTACACCGTCTTCTACGCGCTCCTCTTCGTGTTTCATCTATGC
GCAGCTCTGGCTGGTGTGCGCTACCGTCACAAGCGGCTCAGTACCAGAGCGTCTTCTCTTCTTTGCG
CTCTTCTGGGCTCGCTGCGTACCGTGTCTTCTCTTTTACTTCGAGACTTCGTGGCAGCCAACCTCGT
TCAGCCCTTCGTCTTCTGGCTGTCTACTGCTTCCCCGTGTGTCTACAGTTCTTCACCTCAGGCTCAT
GAATTGTACTTCACGCAGGTGATTTTCAAGGCCAAGTCAAATATTCTCCAGAGCTACTCAAATACCGG
TTACCCCTCTACCTGGCCTCACTTTTCATCAGCCTCGTTTTCTGTTGGTGAATCTGACCTGTGCTGTGC
TGGTGAAGACGGGAGACTGGGACAGGAAGTTATCGTCTCTGTGAGAGTGGCCATCAATGACACACTCTT
TGTGCTGTGTGCTATCTCTCTCCATCTGCCTCTACAAATCTCCAAGATGTCCCTGGCCAACATCTAC
TTGGAGTCAAAGGGCTCATCAGTGTGTGAGTAACTGCCATTGGTGTACCGTCACTTGTCTACACCT
CTCGGGCTGTACAACCTGTTTCATCTTGTCTTTCTCAGATCAAGAAGTCCATTCTTTGATTATGA
CTGGTACAATGTATCCGACAGGAGATCTGAAGAGCCAGCTGGGTGACGCCGGCTACGTAGTGTGGC
GTGGTGTCTTTCTGTGGGAGCTCTACCCACCACCTTGGTGGTTATTTCTTCGAGTCAGAAATCCCA
CGAAGGATCTTACCAATCTGGGATGGTCCCCAGCCATGGATTCAAGTCCAGATCTTACTCTTTTGACAA
CCCCGAAGATATGACAGTGTATGACCTTGCCTGGAACATTGCCCTCAGGGACTTCAGGGAAGTTT
GCTCCAGACTACTGTGATTGGGACAACAAATAACAGCTTCTGGCACAAGCAGGAACCTTGCATCAAG
ACTCCACTTTGGATCCAGACAAAGCAAGCAAGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR206004 protein sequence
 Red=Cloning site Green=Tags(s)

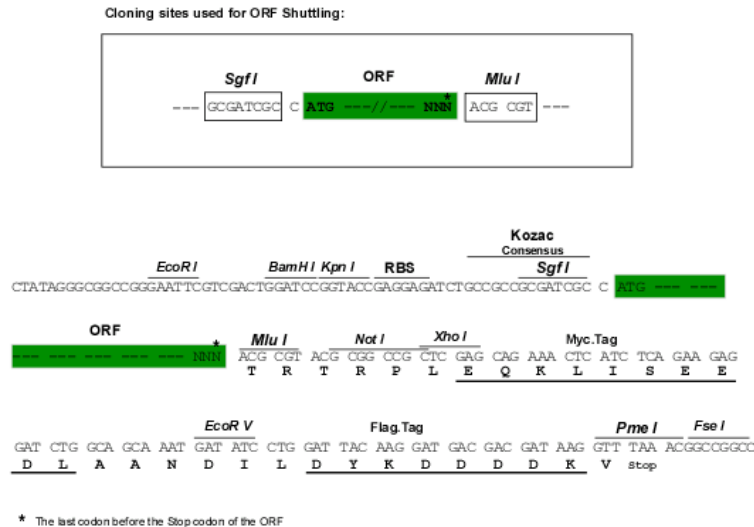
MEAPPWEPVRNDSLPTLSPAVPPYVKLGLTAVYTVFYALLFVFIYAQLWLVLRYRHKRLSYQSVFLFLC
 LFWASLRTVLF SFYFRDFVAANSFSPFVFWLLYCFPVCLQFFTLTLMNL YFTQVIFKAKSKYSPELLKYR
 LPLYLASLFI SLVFLLVNLTCAVLVKTGDWDRKVI VSVRVAINDTLFVLC AISLSICLYKISKMSLANIY
 LESKGSSVCQVTAIGVTVILLYTSRACYNLFILSFSQIKNVHSFDYDWNVSDQADLKSQ LGDAGYVVF
 GVLFVWELLPTTLVVYFFRVRNPTKDLTNPGMVPSHGFS PRSYFFDNPRRYDSDDDLAWN IAPQGLQGSF
 APDYCDWGQQNSFLAQAGTLHQDSTLDPDKASQG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_031999

ORF Size: 1155 bp

OTI Disclaimer: 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_031999.1](#), [NM_031999.2](#), [NP_114388.2](#)

RefSeq Size: 2996 bp

RefSeq ORF: 1158 bp

Locus ID: 83924

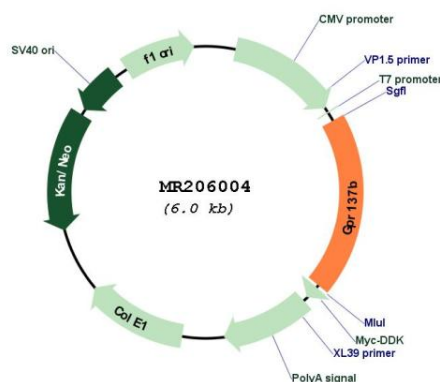
UniProt ID: [Q8BNQ3](#)

Cytogenetics: 13 5.24 cM

MW: 44.1 kDa

Gene Summary: Lysosomal integral membrane protein that regulates the localization and activity of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids. Interacts with Rag GTPases and increases the lysosomal localization and activity of Rag GTPases and thereby regulates mTORC1 translocation and activity in lysosome. Involved in the regulation of lysosomal morphology and autophagy (By similarity). Acts also as a negative regulator of osteoclast activity (PubMed:31173907). Involved in interleukin-4-induced M2 macrophage polarization (PubMed:30595385).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR206004