

## Product datasheet for **RC235752**

### MTLRP (GHRL) (NM\_001302825) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** MTLRP (GHRL) (NM\_001302825) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** MTLRP  
**Synonyms:** MTLRP  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC235752 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

RCATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTGCCATGGC  
AGGCTCCAGTTCCTGAGCCCTGAACACCAGAGAGTCCAGCAGAGAAAGGAGTCGAAGAAGCCACCAGCC  
AAGCTGCAGCCCCGAGCTCTAGCAGGCTGGCTCCGCCGGAAGATGGAGGTCAAGCAGAAGGGCCAGAGG  
ATGAAATGGAAGTCCGGTCAACGCCCTTTGATGTTGGAATCAAGCTGTCAGGGGTTCAGTACCAGCA  
GCACAGCCAGGCCCTGGGAAGTTTCTTCAGGACATCCTCTGGGAAGAGGCCAAAGAGGCCCCAGCCGAC  
AAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC235752 protein sequence  
Red=Cloning site Green=Tags(s)  
XCPPQGPSAASCSSACSGWTWPWQAPAS\*ALNTRESSRERSRRSHQPSCSPEL\*QAGSARKMEVKQKQQR  
MKWKSGSTPPLMLESSCQGFSTSSSTARPWGSFFRTSSGKRPKRPQPT

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6018\\_h01.zip](https://cdn.origene.com/chromatograms/mk6018_h01.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_001302825

**ORF Size:** 351 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.

**RefSeq:** [NM\\_001302825.1](#), [NP\\_001289754.1](#)

**RefSeq Size:** 698 bp

**RefSeq ORF:** 354 bp

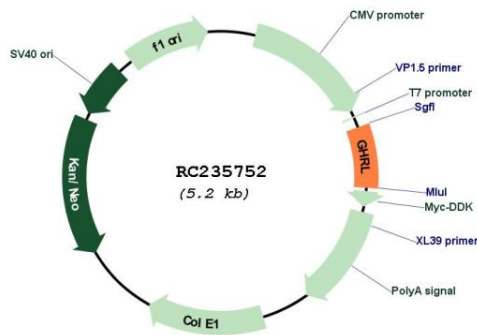
**Locus ID:** 51738

**UniProt ID:** [Q9UBU3](#)

**Cytogenetics:** 3p25.3  
**Protein Families:** Druggable Genome, Secreted Protein, Transmembrane  
**MW:** 12.9 kDa

**Gene Summary:** This gene encodes the ghrelin-obestatin preproprotein that is cleaved to yield two peptides, ghrelin and obestatin. Ghrelin is a powerful appetite stimulant and plays an important role in energy homeostasis. Its secretion is initiated when the stomach is empty, whereupon it binds to the growth hormone secretagogue receptor in the hypothalamus which results in the secretion of growth hormone (somatotropin). Ghrelin is thought to regulate multiple activities, including hunger, reward perception via the mesolimbic pathway, gastric acid secretion, gastrointestinal motility, and pancreatic glucose-stimulated insulin secretion. It was initially proposed that obestatin plays an opposing role to ghrelin by promoting satiety and thus decreasing food intake, but this action is still debated. Recent reports suggest multiple metabolic roles for obestatin, including regulating adipocyte function and glucose metabolism. Alternative splicing results in multiple transcript variants. In addition, antisense transcripts for this gene have been identified and may potentially regulate ghrelin-obestatin preproprotein expression. [provided by RefSeq, Nov 2014]

**Product images:**



Circular map for RC235752