

# **Product datasheet for RG225044**

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# MTLRP (GHRL) (NM\_001134941) Human Tagged ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: MTLRP (GHRL) (NM\_001134941) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: GHRL

Synonyms: MTLRP

Mammalian Cell Neomycin

Selection:

**Vector:** pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG225044 representing NM\_001134941
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG225044 representing NM\_001134941

Red=Cloning site Green=Tags(s)

MPSPGTVCSLLLLGMLWLDLAMAGSSFLSPEHQRVQRKESKKPPAKLQPRALAGWLRPEDGGQAEGAEDE

LEVRFNAPFDVGIKLSGVQYQQHSQALGKFLQDILWEEAKEAPADK

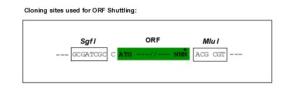
TRTRPLE - GFP Tag - V

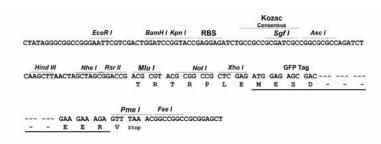
**Restriction Sites:** Sgfl-Mlul



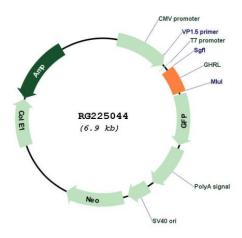


#### **Cloning Scheme:**





#### Plasmid Map:



**ACCN:** NM 001134941

ORF Size: 348 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



### MTLRP (GHRL) (NM\_001134941) Human Tagged ORF Clone - RG225044

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:** <u>NM 001134941.3</u>

RefSeq Size: 549 bp
RefSeq ORF: 351 bp
Locus ID: 51738
UniProt ID: Q9UBU3
Cytogenetics: 3p25.3

**Protein Families:** Druggable Genome, Secreted Protein, Transmembrane

**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]