

## Product datasheet for **SC325460**

### MTLRP (GHRL) (NM\_001134945) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MTLRP (GHRL) (NM_001134945) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTLRP
Synonyms:	MTLRP
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001134945, the custom clone sequence may differ by one or more nucleotides ATGTTTACTTGCTGGTGGTCTTATCTAAGATCAACATTGGCAGCTGTGCCCGGAGAGGCC TCCAGGGTCCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTA GCAGGCTGGCTCCGCCCGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAA GTCCGGTTCAACGCCCTTTGATGTTGGAATCAAGCTGTCAGGGGTTTCAGTACCAGCAG CACAGCCAGGCCCTGGGAAGTTTCTTCAGGACATCCTCTGGGAAGAGGCCAAAGAGGCC CCAGCCGACAAG
Restriction Sites:	Please inquire
ACCN:	NM_001134945
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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).



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**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\\_001134945.1](#), [NP\\_001128417.1](#)

**RefSeq Size:** 498 bp

**RefSeq ORF:** 315 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]

**Transcript Variant:** This variant (4) lacks two alternate in-frame exons and uses an alternate in-frame splice site in the 5' coding region, but maintains the reading frame, compared to variant 1. The resulting isoform (4) is shorter compared to isoform 1 and lacks the N-terminal region that encodes the signal peptide and ghrelin-28 ligand found in isoform 1.