

Product datasheet for **RG202542**

Gastrin Releasing Peptide (GRP) (NM_002091) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gastrin Releasing Peptide (GRP) (NM_002091) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GRP
Synonyms: BN; GRP-10; preproGRP; proGRP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG202542 representing NM_002091
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGCGGCCGTGAGCTCCCGCTGGTCTGCTGGCGCTGGTCTCTGCCTGGCGCCCCGGGGCGAGCGG
TCCCGTGCCTGCGGGCGGAGGGACCGTGTGACCAAGATGTACCCGCGCGGCAACCACTGGCGGTGGG
GCACTTAATGGGGAAAAAGAGCACAGGGGAGTCTTCTTCTGTTTCTGAGAGAGGGAGCCTGAAGCAGCAG
CTGAGAGAGTACATCAGGTGGGAAGAAGCTGCAAGGAATTTGCTGGGTCTCATAGAAGCAAAGGAGAACA
GAAACCACCAGCCACCTCAACCAAGGCCCTGGGCAATCAGCAGCCTTCGTGGGATTCAGAGGATAGCAG
CAACTTCAAAGATGTAGGTTCAAAGGCAAAGTTGGTAGACTCTCTGCTCCAGGTTCTCAACGTGAAGGA
AGGAACCCCGCTGAACCAAGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202542 representing NM_002091
Red=Cloning site Green=Tags(s)
MRGRELPLVLLALVLCAPRGRAVPLPAGGGTVLTKMYPRGNHWAVGHLMGKSTGESSVSRGSLKQQ
LREYIRWEEAARNLLGLIEAKENRNHQPPQPKALGNQQPSWDESSNFKDVGSKGKVGRLSAPGSQREG
RNPQLNQQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

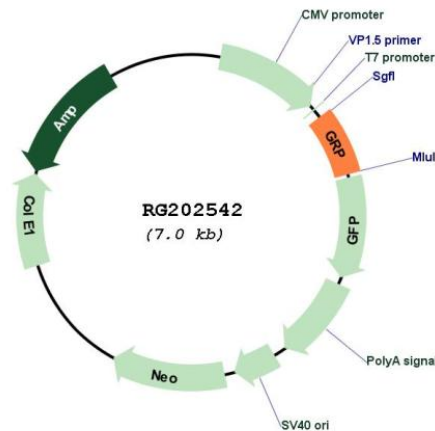


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Cloning Scheme:



Plasmid Map:



ACCN: NM_002091

ORF Size: 444 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:	<ol style="list-style-type: none">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_002091.5
RefSeq Size:	863 bp
RefSeq ORF:	447 bp
Locus ID:	2922
UniProt ID:	P07492
Cytogenetics:	18q21.32
Protein Families:	Secreted Protein
Gene Summary:	This gene encodes a member of the bombesin-like family of gastrin-releasing peptides. The encoded preproprotein is proteolytically processed to generate two peptides, gastrin-releasing peptide and neuromedin-C. These peptides regulate numerous functions of the gastrointestinal and central nervous systems, including release of gastrointestinal hormones, smooth muscle cell contraction, and epithelial cell proliferation. These peptides are also likely to play a role in human cancers of the lung, colon, stomach, pancreas, breast, and prostate. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. [provided by RefSeq, Jan 2016]