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Product datasheet for RC202542

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:	Myc-DDK
Symbol:	Gastrin Releasing Peptide
Synonyms:	BN; GRP-10; preproGRP; proGRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202542 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGCGGCCGTGAGCTCCCGCTGGTCCTGCTGGCGCTGGTCCTCTGCCTGGCGCCCCGGGGGCGAGCGG
TCCCGCTGCCTGCGGGCGGAGGGACCGTGCTGACCAAGATGTACCCGCGCGGCAACCACTGGGCGGTGGG
GCACTTAATGGGGAAAAAGAGCACAGGGGAGTCTTCTTCTGTTTCTGAGAGAGGGAGCCTGAAGCAGCAG
CTGAGAGAGTACATCAGGTGGGAAGAAGCTGCAAGGAATTTGCTGGGTCTCATAGAAGCAAAGGAGAACA
GAAACCACCAGCCACCTCAACCCAAGGCCCTGGGCAATCAGCAGCCTTCGTGGGATTCAGAGGATAGCAG
CAACTTCAAAGATGTAGGTTCAAAAGGCAAAGTTGGTAGACTCTCTGCTCCAGGTTCTCAACGTGAAGGA
AGGAACCCCCAGCTGAACCAGCAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202542 protein sequence
Red=Cloning site Green=Tags(s)

MRGRELPLVLLALVLCLAPRGRAVPLPAGGGTVLTKMYPRGNHWAVGHLMGKKSTGESSSVSERGSLKQQ
LREYIRWEEAARNLLGLIEAKENRNHQPPQPKALGNQQPSWDSEDSSNFKDVGSKGKVGRLSAPGSQREG
RNPQLNQQ

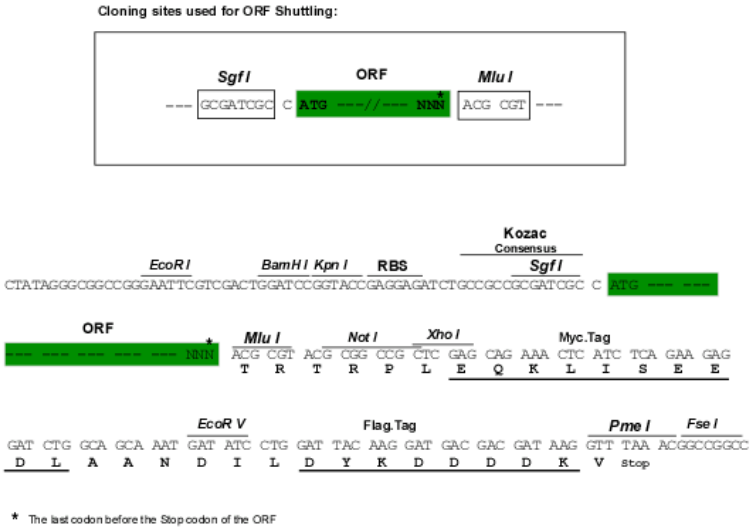
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6233_h06.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:
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_002091.5

RefSeq Size: 863 bp

RefSeq ORF: 447 bp

Locus ID: 2922

UniProt ID: P07492

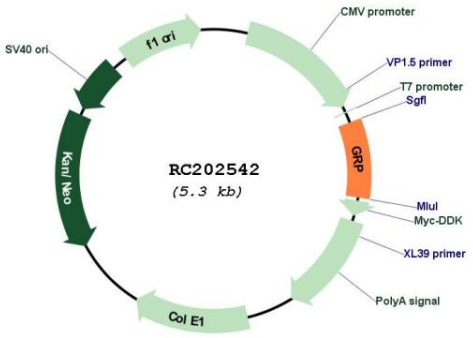
Cytogenetics: 18q21.32

Protein Families: Secreted Protein

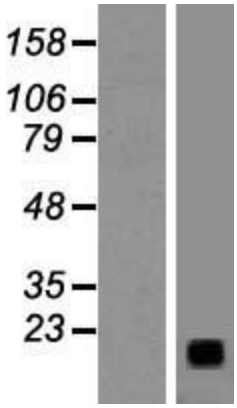
MW: 16.2 kDa

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]

Product images:



Circular map for RC202542



Western blot validation of overexpression lysate (Cat# [LY419540]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202542 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).