

Product datasheet for SC301675

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Gastrin Releasing Peptide (GRP) (NM_001012513) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Gastrin Releasing Peptide (GRP) (NM 001012513) Human Untagged Clone

Tag: Tag Free

Symbol: Gastrin Releasing Peptide

Synonyms: BN; GRP-10; preproGRP; proGRP

Mammalian Cell

Selection:

None

Vector: pCMV6-XL5

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

Fully Sequenced ORF: >OriGene sequence for NM_001012513 edited

AAAA

Restriction Sites: Please inquire **ACCN:** NM 001012513

Insert Size: 800 bp

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).



Gastrin Releasing Peptide (GRP) (NM_001012513) Human Untagged Clone - SC301675

OTI Annotation: The ORF of this clone has been fully sequenced and found to be a perfect match to

NM_001012513.1.

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 001012513.1</u>, <u>NP 001012531.1</u>

 RefSeq Size:
 844 bp

 RefSeq ORF:
 417 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]

Transcript Variant: This variant (3) uses an alternate splice site in the coding region, which results in a frameshift and an early stop codon, compared to variant 1. It encodes isoform 3 which has a shorter and distinct C-terminus, compared to isoform 1. This variant has also been identified as 'splice isoform 2', 'pro-gastrin releasing peptide type 3', and 'gastrin-

releasing peptide nirs variant 1'.