

Product datasheet for RC210362

GRPR (NM_005314) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GRPR (NM_005314) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRPR
Synonyms:	BB2; BB2R; BRS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210362 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCTAAATGACTGTTTCCTTCTGAACTTGGAGGTGGACATTTTCATGCACTGCAACATCTCCAGTC
ACAGTGGGATCTCCCCGTGAACGATGACTGGTCCCACCCGGGGATCCTCTATGTCATCCCTGCAGTTTA
TGGGGTTATCATTCTGATAGGCCTCATTGGCAACATCACTTTGATCAAGATCTTCTGTACAGTCAAGTCC
ATGGGAAACGTTCCAAACCTGTTCAATTCAGTCTGGCTTTGGGAGACCTGCTCCTCCTAATAACGTGTG
CTCCAGTGGATGCCAGCAGGTACCTGGCTGACAGATGGCTATTTGGCAGGATTGGCTGCAAACCTGATCCC
CTTTATACAGTTACCTCTGTTGGGTGTCTGTCTTCACTCACGGCGCTCTCGGCAGACAGATACAAA
GCCATTGTCCGGCCAATGGATATCCAGGCCTCCCATGCCCTGATGAAGATCTGCCTCAAAGCCGCTTTA
TCTGGATCATCTCCATGTCTGGCCATTCAGAGGCCGTGTTTTCTGACCTCCATCCCTCCATGAGGA
AAGCACAACAGACCTTATTAGCTGTGCCCCATACCCACACTAATGAGCTTACCCCCAAAATCCAT
TCTATGGCTTCTTTCTGGTCTTCTACGTCATCCCACTGTCGATCATCTGTTTACTACTACTTTCATTG
CTAAAAATCTGATCCAGAGTGCTTACAATCTTCCCGTGAAGGGAATATACATGTCAAGAAGCAGATTGA
ATCCCGGAAGCGACTTGCCAAGACAGTGTGGTGTGTTGGGCCGTGTTGCGCTTCTGCTGGCTCCCCAAT
CATGTCATCTACCTGTACCGCTCCTACCACTACTCTGAGGTGGACACCTCCATGCTCCACTTTGTACCA
GCATCTGTGCCGCTCCTGGCCTTACCAACTCCTGCGTGAACCCCTTTGCCCTTACCTGCTGAGCAA
GAGTTTACAGAAACAGTTCAACACTCAGCTGCTGTTGCCAGCCTGGCCTGATCATCCGGTCTCACAGC
ACTGGAAGGAGTACAACCTGCATGACCTCCCTCAAGAGTACCAACCCCTCCGTGGCCACCTTTAGCCTCA
TCAATGGAACATCTGTCACGAGCGGTATGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210362 protein sequence
Red=Cloning site Green=Tags(s)

MALNDCFLLNLEVDHFMHCNIISSHSADLPVNDWSHPGILYVIPAVYGVIIIGLIGNITLIKIFCTVKS
 MRNVPNLFISSLALGDLILLITCAPVDASRYLADRWLFGRIGCKLIPFIQLTSVGVSVFTLTALSADRYK
 AIVRPMDIQASHALMKICLKAAFIWIISMLLAIPEAVFSDLHPFHEESTNQTFISCAPYPHSNELHPKIH
 SMASFLVFYVIPLSIIISVYVYFIAKNLIQSAYNLPVEGNIHVKKQIESRKRRLAKTVLVFVGLFAFCWLPN
 HVIIYLRSYHYSEVDTSMLHFVTSICARLLAFTNSCVNPFALYLLSKSFRKQFNTQLLCCQPGLIIRSHS
 TGRSTTCMTSLKSTNPSVATFSLINGNICHERYV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6137_b01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_005314

ORF Size: 1152 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.

RefSeq: [NM_005314.1](#)

RefSeq Size: 2681 bp

RefSeq ORF: 1155 bp

Locus ID: 2925

UniProt ID: [P30550](#)

Cytogenetics: Xp22.2

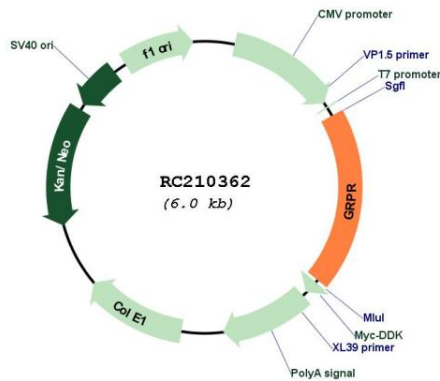
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Calcium signaling pathway, Neuroactive ligand-receptor interaction

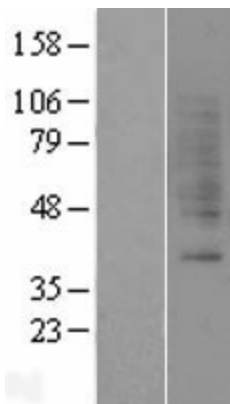
MW: 43.2 kDa

Gene Summary: Gastrin-releasing peptide (GRP) regulates numerous functions of the gastrointestinal and central nervous systems, including release of gastrointestinal hormones, smooth muscle cell contraction, and epithelial cell proliferation and is a potent mitogen for neoplastic tissues. The effects of GRP are mediated through the gastrin-releasing peptide receptor. This receptor is a glycosylated, 7-transmembrane G-protein coupled receptor that activates the phospholipase C signaling pathway. The receptor is aberrantly expressed in numerous cancers such as those of the lung, colon, and prostate. An individual with autism and multiple exostoses was found to have a balanced translocation between chromosome 8 and a chromosome X breakpoint located within the gastrin-releasing peptide receptor gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC210362



Western blot validation of overexpression lysate (Cat# [LY401638]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210362 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).