

## Product datasheet for **RC212825**

### LGR5 (NM\_003667) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LGR5 (NM_003667) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LGR5
Synonyms:	FEX; GPR49; GPR67; GRP49; HG38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC212825 representing NM\_003667  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACACCTCCCGGCTCGGTGTGCTCCTGTCTTGCCTGTGCTGCTGCAGCTGGCGACCGGGGACAGT  
 CTCCCAGGTCTGGTGTGTGCTGAGGGGCTGCCCCACACACTGTATTGCGAGCCCGACGGCAGGATGTT  
 GCTCAGGGTGGACTGCTCCGACCTGGGGCTCTCGGAGCTGCCTTCCAACCTCAGCGTCTTACCTCTAC  
 CTAGACCTCAGTATGAACAACATCAGTCAGCTGCTCCGAATCCCCTGCCAGTCTCCGCTTCTGGAGG  
 AGTTACGTCTTGGCGGAAACGCTCTGACATACATTCCAAGGGAGCATTCACTGGCCTTACAGTCTTAA  
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 CAACTCAAGCCTTGTAACCTTTACCAGCTCCAGCATCACTTATGACCTGCCTCCAGTTCGGTCCATC  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC212825 representing NM\_003667  
 Red=Cloning site Green=Tags(s)

MDTSRLGVLLSLPVLLQLATGGSSPRSGVLLRGCPHCHCEPDGRMLLRVDCSDLGSELPSNLSVFSTY  
 LDLSMNNISQLLPNPLSLRFLLEELRLAGNALTYIPKGAFTGLYSLKVLMLQNNQLRHVPTEALQNLRS  
 QSLRLDANHISYVPPSCFSGLHSLRHLWDDNALTEIPVQAFRSLSALQAMTLALNKIHHIPDYAFGNLS  
 SLVVLHLHNNRIHSLGKKCFDGLHSLLETLDLNYNNLDEFPTAIRTL SNLKELGPHSNNIRSIPEKAFVGN  
 PSLITIHIFYDNPIQFVGRSAFQHLPELRTLTLNGASQITEFPDLTGTANLESRTL TGAQISSLPQTVCNQ  
 LPNLQVLDLSYNLLEDLPSFSVCQKLQKIDLRHNEIYEIKVDTFQQLSLRSLNLAWNKIAIIHPNAFST  
 LPSLIKLDLSSNLLSSFPITGLHGLTHLKL TGNHALQSLISSENFPELKVIEMPYAYQCCAFGVCENAYK  
 ISNQWNGDNSSMDDLHKKDAGMFAQQDERDLEDFLLDFEEDLKALHSVQCSPSPGPFKPCHELLDGWLI  
 RIGVWTIAVLALTCNALVTSTVFRSPLYISPIKLLIGVIAAVNMLTGVS SA VLAGVDAFTFGSFARHGAW  
 WENGVGCHVIGFLSIFASESSVLLTLAALERGFSAKYSAKFETKAPFSSLKVIILLCALLAL TMAAVPL  
 LGGSKYGASPLCLPLPFGEPTMGYMVALILLNSLCFLMMTIAYTKLYCNLDKGDLENIWDCSMVKHIAL  
 LLFTNCILNCPVAFLSFSSLINLTFISPEVIKFI LLVVVPLPACLNPLL YILFNPHFKEDLVSLRKQTYV  
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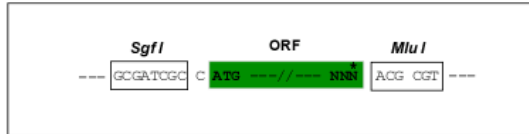
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2611\\_c02.zip](https://cdn.origene.com/chromatograms/mg2611_c02.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

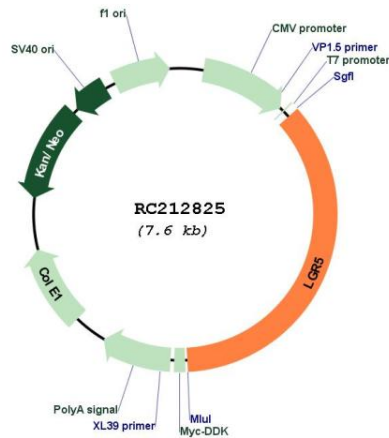


\* The last codon before the Stop codon of the ORF

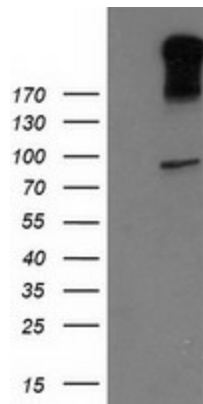
ACCN: NM\_003667

<b>ORF Size:</b>	2721 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_003667.4</a>
<b>RefSeq Size:</b>	2880 bp
<b>RefSeq ORF:</b>	2724 bp
<b>Locus ID:</b>	8549
<b>UniProt ID:</b>	<a href="#">O75473</a>
<b>Cytogenetics:</b>	12q21.1
<b>Domains:</b>	7tm_1, LRRNT, LRR, LRR_TYP, LRR_PS
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>MW:</b>	99.8 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a leucine-rich repeat-containing receptor (LGR) and member of the G protein-coupled, 7-transmembrane receptor (GPCR) superfamily. The encoded protein is a receptor for R-spondins and is involved in the canonical Wnt signaling pathway. This protein plays a role in the formation and maintenance of adult intestinal stem cells during postembryonic development. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2015]

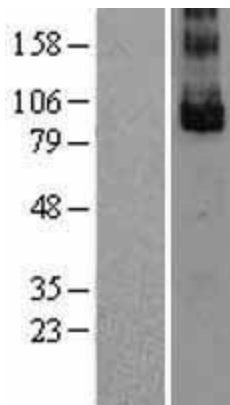
Product images:



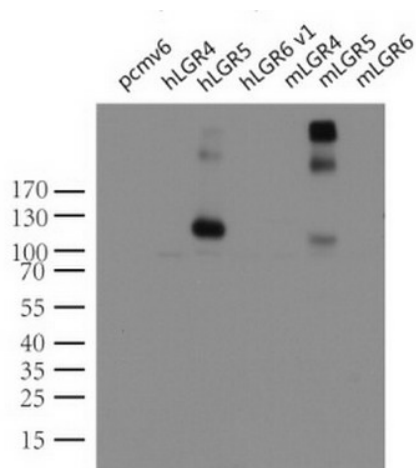
Circular map for RC212825



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LGR5 (Cat# RC212825, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LGR5 (Cat# [TA503316]). Positive lysates [LY401213] (100ug) and [LC401213] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401213]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212825 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Western blot analysis of extracts (10ug) from 7 different transiently transfected HEK293T cell lysates by using anti-LGR5 monoclonal antibody (Cat# [UM800104]). Lanes: control vector pCMV6-Entry (Cat# [PS100001]); human LGR4 (Cat# [RC221345]), LGR5 (Cat# RC212825) and LGR6 (Cat# [RC219284]), and mouse LGR4 (Cat# [MR219497]), LGR5 (Cat#[MR219702]) and LGR6 (Cat# [MR224646]).