

Product datasheet for RC222436

GALR2 (NM_003857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GALR2 (NM_003857) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GALR2
Synonyms:	GAL2-R; GALNR2; GALR-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222436 representing NM_003857 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACGTCTCGGGCTGCCAGGGGCCGGGAACGCGAGCCAGGCGGGCGGGGGAGGCTGGCACCCCG
AGGCGGTTCATCGTCCCTGCTCTTCGCGCTCATCTTCTCGTGGGCACCGTGGGCAACACGCTGGTGT
GGCGGTGCTGCTGCGCGGCCAGGCGGTGAGCACTACCAACCTGTTTCATCCTAACCTGGGCGTGGCC
GACCTGTGTTTCATCCTGTGCTGCGTGCCTTCCAGGCCACCCTACACCCTGGACGGCTGGGTGTTCC
GCTCGTGTGCAAGGCGGTGCACTTCTCATCTTCTCACCATGCACGCCAGCAGCTTCACGCTGGC
CGCGTCTCCCTGGACAGGTATCTGGCCATCCGCTACCCGCTGCACTCCCGCAGCTGCGCACGCCCTCGA
AACCGCTGGCAGCCATCGGGCTCATCTGGGGCTGTCGCTGCTTCTCCGGGCCCTACCTGAGCTACT
ACCGCCAGTGCAGCTGGCAACCTGACCGTGTGCCATCCCGCTGGAGCGCCCTCGCCGCCGCGCCAT
GGACATCTGCACCTTCGTCTTACGCTACCTGCTTCTGTGCTGGTTCCTCGGCCTGACCTACGCGCGCACC
TTGCGTACCTCTGGCGCGCCGTGACCCGGTGGCCGCGGGCTCGGGTCCCGCGCGCCAAGCGCAAGG
TGACACGATGATCCTCATCGTGGCCGCGCTCTTCTGCCTCTGCTGGATGCCCAACACGCGCTCATCCT
CTGCGTGTGGTTCGGCCAGTTCCTGCTCACGCGGCCACTTATGCGCTTCGCATCCTCTCGCACCTGGTC
TCCTACGCCAATCCTGCGTCAACCCATCGTTTACGCGTGGTCTCAAGCACTTCGCGAAAGGCTTCC
GCACGATCTGCGCGGCCCTGCTGGCCGTGCCCAAGCCGAGCCTCGGGCCGTGTGTGCGCTGCCGCGCG
GGGCACCCACAGTGGCAGCGTGTGGAGCGCGAGTCCAGCGACCTGTTGCACATGAGCGAGGCGCGGGG
GCCCTTCTGCTCCCTGCCCGCGCTTCCAGCCATGCATCCTCGAGCCCTGTCTGGCCCGTCTGGCAGG
GCCAAAGGCAGGCGACAGCATCCTGACGGTTGATGTGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC222436 representing NM_003857
Red=Cloning site Green=Tags(s)

MNVSGCPGAGNASQAGGGGWHPEAVIVPLL FALIFLVGTVGNTLV LAVLLRGGQAVSTTNLFILNLGVA
 DLCFILCCVPFQATIYTLDGWVFGSLLCKAVHFLIFLTMHASSFTLAASLDRYLAI RYPLHSRELRTPR
 NALAAIGLIWGLSLLFSGPYLSYRQSQLANLTVCHPAWSAPRRRAMDICTFVFSYLLPVLV LGLTYART
 LRYLWRAVDPVAAGSGARRAKRKVTRMILIVAALFCLCWMPHHALILCVWFGQFPLTRATYALRILSHLV
 SYANSCVNP IYVALVSKHFRKGFRTICAGLLGRAPGRASGRVCAAARGTHSGSVLERESSDLLHMSEAAG
 ALRPCPGASQPCILEPCGPSWQGP KAGDSILTVDVA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6116_a02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_003857

ORF Size: 1161 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_003857.4](#)

RefSeq Size: 1309 bp

RefSeq ORF: 1164 bp

Locus ID: 8811

UniProt ID: [O43603](#)

Cytogenetics: 17q25.1

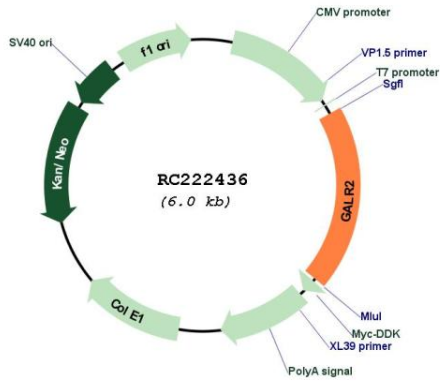
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

MW: 41.5 kDa

Gene Summary: Galanin is an important neuromodulator present in the brain, gastrointestinal system, and hypothalamopituitary axis. It is a 30-amino acid non-C-terminally amidated peptide that potently stimulates growth hormone secretion, inhibits cardiac vagal slowing of heart rate, abolishes sinus arrhythmia, and inhibits postprandial gastrointestinal motility. The actions of galanin are mediated through interaction with specific membrane receptors that are members of the 7-transmembrane family of G protein-coupled receptors. GALR2 interacts with the N-terminal residues of the galanin peptide. The primary signaling mechanism for GALR2 is through the phospholipase C/protein kinase C pathway (via Gq), in contrast to GALR1, which communicates its intracellular signal by inhibition of adenylyl cyclase through Gi. However, it has been demonstrated that GALR2 couples efficiently to both the Gq and Gi proteins to simultaneously activate 2 independent signal transduction pathways. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC222436