

Product datasheet for **RG222436**

GALR2 (NM_003857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GALR2 (NM_003857) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GALR2
Synonyms:	GAL2-R; GALNR2; GALR-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG222436 representing NM_003857 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAACGTCTCGGGCTGCCAGGGGCCGGAACGCGAGCCAGGCGGGCGGGGGAGGCTGGCACCCCG
AGGCGGTTCATCGTCCCTGCTCTTCGCGCTCATCTTCTCGTGGGCACCGTGGGCAACACGCTGGTGT
GGCGGTGCTGCTGCGCGGCCAGGCGGTCAGCACTACCAACCTGTTTCATCCTAACCTGGGCGTGGCC
GACCTGTGTTTCATCCTGTGCTGCGTGCCTTCCAGGCCACCCTACACCCTGGACGGCTGGGTGTTCC
GCTCGTGTGCAAGGCGGTGCACTTCTCATCTTCTCACCATGCACGCCAGCAGCTTCACGCTGGC
CGCGTCTCCCTGGACAGGTATCTGGCCATCCGCTACCCGCTGCACTCCCGCAGCTGCGCACGCCCTCGA
AACCGCTGGCAGCCATCGGGCTCATCTGGGGCTGTCGCTGCTTCTCCGGGCCCTACCTGAGCTACT
ACCGCCAGTGCAGCTGGCCAACCTGACCGTGTGCCATCCCGCTGGAGCGCCCTCGCCGCCGCGCCAT
GGACATCTGCACCTTCGTCTTACGCTACCTGCTTCTGTGCTGGTTCGCGCTGACCTACGCGCGCACC
TTGCGTACCTCTGGCGCGCCGTGACCCGGTGGCCGCGGGCTCGGGTGGCCGGCGCCAAAGCGCAAGG
TGACACGATGATCCTCATCGTGGCCGCGCTCTTGCCTCTGCTGGATGCCCAACACGCGCTCATCCT
CTGCGTGTGGTTCGGCCAGTTCGCGTCAACCCATCGTTTACGCGTGGTCTCAAGCACTTCGCGAAAGGTTCC
GCACGATCTGCGCGGCCCTGCTGGCCGTGCCCAAGCCGAGCCTCGGGCCGTGTGTGCGCTGCCGCGCG
GGGCACCCACAGTGGCAGCGTGTGGAGCGGAGTCCAGCGACCTGTTGCACATGAGCGAGGCGCGGGG
GCCCTTCTGCTCCCTGCCCGCGCTTCCAGCCATGCATCCTCGAGCCCTGTCTGGCCCGTCTGGCAGG
GCCAAAGGCGAGCGACAGCATCCTGACGGTTGATGTGGCC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG222436 representing NM_003857
 Red=Cloning site Green=Tags(s)

MNVSGCPGAGNASQAGGGGWHP EAVIVPLL FALIFLVGT VGNLVLAVLLRGGQAVSTNLFILNLGVA
 DLFCILCCVPFQATIYTLDGWVFGSLLCKAVHFLIFLTMHASSFTLAAVSLDRYLAI RYPLHSREL RTPR
 NALAAIGLIWGLSLLFSGPYLSYRQSQLANLTVCHPAWSAPRRRAMDICTFVFSYLLPVLVGLTYART
 LRYLWRAVDPVAAAGSGARRAKRKVTRMILIVAALFCLCWMPHHALILCVWFGQFPLTRATYALRILSHLV
 SYANSCVNP IYVALVSKHFRKGFRTICAGLLGRAPGRASGRVCAAARGTHSGSVLERESSDLLHMSEAAG
 ALRPCPGASQPCILEPCPGPSWQGP KAGDSILTV DVA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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](#)

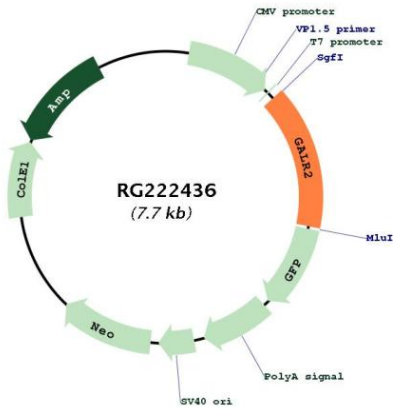
Cytogenetics: 17q25.1

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

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 RG222436