

Product datasheet for **RG211474**

GNRH2 (NM_178331) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GNRH2 (NM_178331) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: GNRH2
Synonyms: GnRH-II; LH-RHII
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG211474 representing NM_178331
Red=Cloning site **Blue**=ORF **Green**=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGCTCCAGGCGAGGCCTCCTGCTCCTGCTGCTGCTGACTGCCACCTTGGACCCTCAGAGGCTC
AGCACTGGTCCCATGGCTGGTACCCTGGAGGAAAGCGAGCCCTCAGCTCAGCCCAGGATCCCCAGAATGC
CCTTAGGCCCCCAGCAGGCAGCCAGTCCAGACTGCCATGGCCTCCAAGTGATGCCCTGGCTCCCCTG
GACGACAGCATGCCCTGGGAGGGCAGGACCACGGCCAGTGGTCCCTTACAGGAAGCGACACCTGGCAC
GGACTGCTGACCGCAGCCGAGAGCCCCGCCCGCCCGCCATCCTCCAATAAAGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG211474 representing NM_178331
Red=Cloning site **Green**=Tags(s)
MASSRRLLLLLLLLTAHLGPSEAQHWSHGWYPGGKRALSSAQDPQNALRPPAGSPVQTAHGLPSDALAPL
DSSMPWEGRTTAQWSLHRKRHLARTLLTAAREPRPAPPSSNKV

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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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:	<ol style="list-style-type: none">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_178331.2
RefSeq Size:	402 bp
RefSeq ORF:	342 bp
Locus ID:	2797
UniProt ID:	O43555
Cytogenetics:	20p13
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	GnRH signaling pathway
Gene Summary:	<p>This gene is a member of the gonadotropin-releasing hormone (GnRH) gene family. Proteins encoded by members of this gene family are proteolytically cleaved to form neuropeptides which, in part, regulate reproductive functions by stimulating the production and release of the gonadotropins follicle-stimulating hormone (FSH) and luteinizing hormone (LH). The human GNRH2 gene is predicted to encode a preproprotein from which a mature neuropeptide of 10 amino acids is cleaved. However, while the human genome retains the sequence for a functional GNRH2 decapeptide, translation of the human GNRH2 gene has not yet been demonstrated and the GNRH2 gene of chimpanzees, gorilla, and Sumatran orangutan have a premature stop at codon eight of the decapeptide sequence which suggests GNRH2 was a pseudogene in the hominid lineage. The GNRH2 gene is also believed to be a pseudogene in many other mammalian species such as mouse and cow. The receptor for this gene (GNRHR2) is predicted to be a pseudogene in human as well as many other mammalian species. The closely related GNRH1 and GNRHR1 genes are functional in human and other mammals and are generally functional in vertebrates. [provided by RefSeq, Mar 2019]</p>