

## Product datasheet for **RG221882**

### 5HT3A receptor (HTR3A) (NM\_213621) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	5HT3A receptor (HTR3A) (NM_213621) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HTR3A
Synonyms:	5-HT-3; 5-HT3A; 5-HT3R; 5HT3R; HTR3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG221882 representing NM\_213621  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTGCTGTGGGTCCAGCAGGCGCTGCTCGCCTTGCTCCTCCCACACTCCTGGCACAGGGAGAAGCCA  
 GGAGGAGCCGAAACACCACCAGGCCGCTCTGCTGAGGCTGTTCGATTACCTTTTGACCAACTACAGGAA  
 GGGTGTGCGCCCCGTGAGGGACTGGAGGAAGCCAACCACCGTATCCATTGACGTATTGTCTATGCCATC  
 CTCAACGTGGATGAGAAGAATCAGGTGCTGACCACCTACATCTGGTACCGGCAGTACTGGACTGATGAGT  
 TTCTCCAGTGGAAACCCTGAGGACTTTGACAACATCACCAAGTTGTCCATCCCACGGACAGCATCTGGGT  
 CCCGGACATTCTCATCAATGAGTTCGTGGATGTGGGGAAGTCTCCAAATATCCCGTACGTGTATATTGG  
 CATCAAGGCGAAGTTCAGAACTACAAGCCCCTCAGGTGGTACTGCCTGTAGCCTCGACATCTACAAC  
 TCCCCTTCGATGTCCAGAACTGCTCGTGACCTTCACCAGTTGGTGCACACCATCCAGGACATCAACAT  
 CTCTTTGTGGCGTTGCCAGAAAAGGTGAAATCCGACAGGAGTGTCTTCATGAACCAGGGAGAGTGGGAG  
 TTGCTGGGGTGTGCCCCACTTTTCGGGAGTTCAGCATGGAAAGCAGTAACTACTATGCAGAAATGAAGT  
 TCTATGTGGTATCCGCCGGCGGCCCTCTTCTATGTGGTTCAGCCTGCTACTGCCAGCATCTTCTCAT  
 GGTATGGACATCGTGGGCTTCTACCTGCCCCCAACAGTGGCGAGAGGGTCTCTTTCAAGATTACACTC  
 TCCTGGGCTACTCGGTCTTCTGATCATCGTTTCTGACACGCTGCCGGCCACTGCCATCGGCACCTCCTC  
 TCATTGGTAAGGCCCTCCTGGCAGCAGAGCTCAGTCTGGTGAGAAACCCGCCCTCCACCTCCTGCA  
 TGTGTCTCTTGCCTTGCCTGGGCTGCACAGGTGTCTACTTTGTGGTGTGCATGGCTCTGCTGGTGATA  
 AGTTTGGCCGAGACCATTCTATTGTGCGGCTGGTGCACAAGCAAGACCTGCAGCAGCCCGTGCCTGCT  
 GGCTGCGTACCCTGGTTCTGGAGAGAATCGCTGGTACTTTGCCTGAGGGAGCAGTCAACTCCCAGAG  
 GCCCCAGCCACCTCCCAAGCCACCAAGACTGATGACTGCTCAGCCATGGGAAACCACTGCAGCCACATG  
 GGAGGACCCAGGACTTCGAGAAGAGCCGAGGGACAGATGTAGCCCTCCCCACCACCTCGGGAGGCT  
 CGCTGGCGGTGTGTGGGCTGCTGCAGGAGCTGTCTCCATCCGGCAATTCTGAAAAGCGGGATGAGAT  
 CCGAGAGGTGGCCGAGACTGGCTGCGCGTGGGCTCCGTGCTGGACAAGCTGCTATTCCACATTTACCTG  
 CTAGCGGTGCTGGCTACAGCATACCCTGTTATGCTCTGGTCCATCTGGCAGTACGCT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG221882 representing NM\_213621  
 Red=Cloning site Green=Tags(s)

MLLWVQALLALLPTLLAQGEARRSRNTRPALLRLSDYLLTNYRKGVRPVRDWRKPTTVSIDIVYAI  
 LNVDEKNQVLTTYIWYRQYWTDEFLLQWNPEDFDNITKLSIPTDSIWVPDILINEFVDVGKSPNIPVYVIR  
 HQGEVQNYKPLQVVTACSLDIYNFPFDVQNCSTFTSWLHTIQDINISLWRLPEKVKSDRSVFMNQGEWE  
 LLGVLPYFREFSMESSNYAEMKFYVVIIRRRPLFYVVSLLLPSIFLMVMDIVGFYLPNSGERVSFKITL  
 LLGYSVFLIIVSDTLPATAIGTPLIGKAPPGSRAQSGEKPAPSHLLHVSLASALGCTGVYFVVMALLVI  
 SLAETIFIVRLVHKQDLQQPVPAWLRHLVLERIAWLLCLREQSTSQRPPATSQATKTDCCSAMGNHCSHM  
 GGPQDFEKSPDRCSPPPPPREASLAVCGLLQELSSIRQFLEKRDEIREVARDWLRVGSVLDKLLFHIYL  
 LAVLAYSITLVMLWSIWQYA

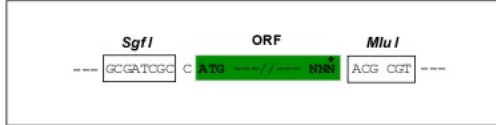
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

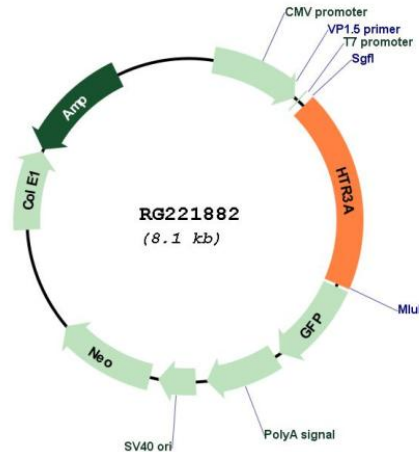
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_213621

ORF Size: 1530 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\\_213621.4](#)

**RefSeq Size:** 2243 bp

**RefSeq ORF:** 1533 bp

**Locus ID:** 3359

**UniProt ID:** [P46098](#)

**Cytogenetics:** 11q23.2

**Protein Families:** Druggable Genome, Ion Channels: Cys-loop Receptors, Transmembrane

**Gene Summary:** The product of this gene belongs to the ligand-gated ion channel receptor superfamily. This gene encodes subunit A of the type 3 receptor for 5-hydroxytryptamine (serotonin), a biogenic hormone that functions as a neurotransmitter, a hormone, and a mitogen. This receptor causes fast, depolarizing responses in neurons after activation. It appears that the heteromeric combination of A and B subunits is necessary to provide the full functional features of this receptor, since either subunit alone results in receptors with very low conductance and response amplitude. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]