

## Product datasheet for **MG222559**

### Htr2a (NM\_172812) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Htr2a (NM_172812) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Htr2a
Synonyms:	E030013E04; Htr-2; Htr2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG222559 representing NM\_172812  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAATCTCTGTGAAGACAATATCTCCCTGAGCTCAATTCCAAACCTCTTAATGCAATTAGGTGACG  
 ACTCGAGGCTCTACCCTAATGACTTCAACTCCAGGGATGCTAACACTTCGGAAGCCTCGAACTGGACAAT  
 TGATGCTGAAAAACAGAACCAACCTCTCCTGCGAAGGGTACCTCCCACCGACATGCCTCTCCATTCTTCAT  
 CTCAGGAAAAAACTGGTCTGCTTTATTGACAACTGTCGTGATTATTCTCACCATTGCGGGAAACATAC  
 TGGTCATCATGGCAGTGTCCCTAGAGAAAAAGCTGCAGAATGCCACCAACTATTTCTGATGTCACTTGC  
 CATAGCTGATGCTGCTGGTTTCTTGTGTCATGCCCGTGTCCATGTTAACCATCCTGTATGGGTACCGG  
 TGGCCTTTCGCCAGCAAGCTCTGTGCCGTCTGGATTTACCTGGATGTGCTCTTCTCCACGGCGTCCATCA  
 TGCACCTCTGCGCCATCTCCCTGGACCGCTACGTGGCTATCCAGAACCCATTACCATAGCCGCTTCAA  
 CTCAGAACCAAAGCCTTCTGAAAATCATTGCGGTGTGGACCATATCCGTAGGTATATCCATGCCAATC  
 CAGTCTTCGGGCTACAGGATGATTGAAAGTCTTTAAGGAAGGGAGCTGCCTGCTCGCCGATGACAAC  
 TTGTCCTCATAGGCTCTTTGTGGCATTTCATCCCCCTAACCATCATGGTGATCACCTACTTCTCTGAC  
 TATCAAGTCACTTCAGAAAAGGCCACCTTGTGTGTGAGTGACCTCAGCACTCGGGCCAAATATCTCTCC  
 TTCAGTTCCTCCCTCAGAGTCTCTGTGTCATCAGAAAAGCTCTCCAGCGGTCCATCCACAGAGAGCCAG  
 GTCCTACGCAGGCCGAAGGACGATGCAGTCCATCAGCAACGAGCAAAAAGCATGCAAGGTGCTGGGCAT  
 CGTGTCTTTCTGTTTGTGTAATGTGGTGCCATTCTTCATACCAATATCATGGCCGTCATCTGCAAA  
 GAATCTGCAATGAAAATGTCATTGGAGCCCTGCTCAATGTGTTGTCTGGATTGGTTATCTCTCCCTCAG  
 CCGTCAACCCACTGGTATATACGTTGTTCAATAAACTTATAGGTCCGCCTTCTCACGGTACATTCAGTG  
 CCAGTACAAGGAGAACAGAAAAGCCGCTGCAGTTAATTTTGTGAACACTATACCAACATTGGCCTACAAG  
 TCTAGTACGCTCCAGGTGGGACAAAAAAGAACTCACAGGAAGATGCTGAGCCGACAGCTAATGACTGCT  
 CCATGGTTACTAGGGAACCAACTCGGAAGAGATGTGTACAGACAATATTGAAACCGTGAATGAAAA  
 GGTTAGCTGTGTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG222559 representing NM\_172812  
 Red=Cloning site Green=Tags(s)

MEILCEDNISLSSIPNSLMQLGDDSRLYPNDFNSRDANTSEASNWTIDAENRTNLSCEGYLPPTCLSILH  
 LQEKNSALLTTVVIIILTIAGNILVIMAVSLEKKLQONATNYFLMSLAIADMLLGFVMPVSMILTILYGYR  
 WPLPSKLCAVWIYLDVLFSTASIMHLCAISLDRYVAIQNPIHHSRFRNSRTKAFLKIIAVWTISVGI SMP I  
 PVFGLQDDSKVFKEGSCLLADDNFVLIGSFVAFFIPLTIMVITYFLTIKSLQKEATLCVSDLSTRAKLS  
 FSFLPQSSLSEKLFQRSIHREPGSYAGRRTMQSISNEQKACKVLGIVFFLVVMMWCPFFITNIMAVICK  
 ESCNENVIGALLNVFVWIGYLSAVNPLVYTLFNKTYRSASF SRYIQCYKENRKPLQLILVNTIPTLAYK  
 SSQLQVGQKNSQEDAEP TANDCSMVTLGNQHSEEMCTDNIETVNEKVS CV

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_172812

**ORF Size:** 1413 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

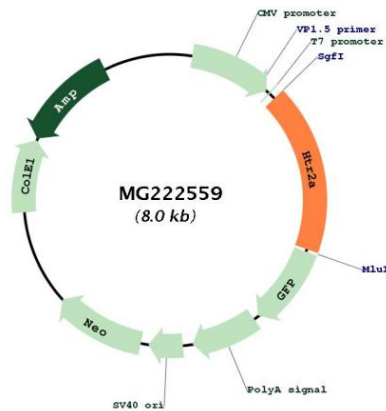
**Reconstitution Method:**

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\\_172812.3](#)  
**RefSeq Size:** 2971 bp  
**RefSeq ORF:** 1416 bp  
**Locus ID:** 15558  
**UniProt ID:** [P35363](#)  
**Cytogenetics:** 14 39.37 cM

**Gene Summary:** G-protein coupled receptor for 5-hydroxytryptamine (serotonin). Also functions as a receptor for various drugs and psychoactive substances, including mescaline, psilocybin, 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane (DOI) and lysergic acid diethylamide (LSD). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of down-stream effectors. Beta-arrestin family members inhibit signaling via G proteins and mediate activation of alternative signaling pathways. Signaling activates phospholipase C and a phosphatidylinositol-calcium second messenger system that modulates the activity of phosphatidylinositol 3-kinase and promotes the release of Ca(2+) ions from intracellular stores. Affects neural activity, perception, cognition and mood. Plays a role in the regulation of behavior, including responses to angiogenic situations and psychoactive substances. Plays a role in intestinal smooth muscle contraction, and may play a role in arterial vasoconstriction. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG222559