

## Product datasheet for **RG220499**

### TSH Receptor (TSHR) (NM\_000369) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TSH Receptor (TSHR) (NM_000369) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TSH Receptor
Synonyms:	CHNG1; hTSHR-I; LGR3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RG220499 representing NM\_000369  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGGCCGGCGGACTTGCTGCAGCTGGTGTCTGCTCGACCTGCCAGGGACCTGGGCGGAATGGGGT  
 GTTCGTCTCCACCCTGCGAGTGCCATCAGGAGGAGGACTTCAGAGTCACCTGCAAGGATATTCAACGCAT  
 CCCCAGCTTACCGCCAGTACGCAGACTCTGAAGCTTATTGAGACTCACCTGAGAACTATTTCAAGTCAT  
 GCATTTTCTAATCTGCCAATATTTCCAGAATCTACGTATCTATAGATGTGACTCTGCAGCAGCTGGAAT  
 CACACTCCTTCTACAATTTGAGTAAAGTGACTCACATAGAAATTCGGAATACCAGGAACTTAACTTACAT  
 AGACCCTGATGCCCTCAAAGAGCTCCCCCTCTAAAGTTCCTTGGCATTTCACACTGGACTTAAATG  
 TTCCTGACCTGACCAAAGTTTATTCCACTGATATTTCTTTATACTTGAATACAGACAACCCTTACA  
 TGACGTCAATCCCTGTGAATGCTTTTCAGGGACTATGCAATGAAACCTTGACACTGAAGCTGTACAACA  
 TGGCTTTACTTCAGTCCAAGGATATGCTTTCAATGGGACAAAGCTGGATGCTGTTTACCTAAACAAGAAT  
 AAATACCTGACAGTTATTGACAAAGATGCAATTTGGAGGAGTATACAGTGGACCAAGCTTGCCTGGAGTGT  
 CTCAAACCAAGTGTCACTGCCCTCCATCCAAAGGCCTGGAGCACCTGAAGGAACTGATAGCAAGAAACAC  
 CTGGACTCTTAAGAACTTCCACTTTCCTTGAGTTTCTTACCTCACACGGGCTGACCTTTCTTACCCA  
 AGCCACTGCTGTGCTTTTAAAGATCAGAAGAAAATCAGAGGAATCCTTGAGTCTTGATGTGTAATGAGA  
 GCAGTATGCAGAGCTTGCGCCAGAGAAAATCTGTGAATGCCTTGAATAGCCCCCTCCACCAGGAATATGA  
 AGAGAATCTGGGTGACAGCATTGTTGGGTACAAGGAAAAGTCCAAGTTCAGGATACTCATAACAACGCT  
 CATTATTACGTCTTCTTTGAAGAACAAGAGGATGAGATCATTGGTTTTGGCCAGGAGCTCAAAAACCCCC  
 AGGAAGAGACTCTACAAGCTTTTGACAGCCATTATGACTACACCATATGTGGGGACAGTGAAGACATGGT  
 GTGTACCCCAAGTCCGATGAGTTCAACCCGTGTGAAGACATAATGGGCTACAAGTTCTGAGAATTGTG  
 GTGTGGTTCGTTAGTCTGCTGGCTCCTGGGCAATGTCTTTGTCTGCTTATTCTCCTACCAGCCACT  
 ACAAACCTGAACGTCCCCGCTTCTCATGTGCAACCTGGCCTTTGCGGATTTCTGCATGGGGATGTACCT  
 GCTCCTCATCGCCTCTGTAGACCTCTACACTCACTCTGAGTACTACAACCATGCCATCGACTGGCAGACA  
 GGCCCTGGGTGCAACACGGCTGGTTTCTCACTGTCTTTGCAAGCGAGTTATCGGTGTATACGCTGACGG  
 TCATCACCTGGAGCGCTGGTATGCCATCACCTTCGCCATGCGCCTGGACCGGAAGATCCGCCTCAGGCA  
 CGCATGTGCCATCATGGTTGGGGCTGGGTTTGTCTCCTTCTCGCCCTGCTTCCTTTGGTGGGAATA  
 AGTAGCTATGCCAAAGTCAGTATCTGCCTGCCATGGACACCGAGACCCCTCTTGTCTGGCATATATTG  
 TTTTGTCTGACGCTCAACATAGTTGCCCTTCGTATCGTCTGCTGCTGTTATGTGAAGATCTACATCAC  
 AGTCCGAAATCCGAGTACAACCCAGGGGACAAAGATACCAAAATTGCCAAGAGGATGGCTGTGTTGATC  
 TTCACCGACTTCATATGCATGGCCCAATCTCATTCTATGCTCTGTGAGCAATTCTGAACAAGCCTCTCA  
 TCACTGTTAGCAACTCAAAAATCTTGTGGTACTCTTCTATCCACTTAACTCCTGTGCCAATCCATTCT  
 CTATGCTATTTTACCAAGGCCTTCCAGAGGGATGTGTTTCATCCTACTCAGCAAGTTTGGCATCTGTAAA  
 CGCCAGGCTCAGGCATACCGGGGCGAGAGGTTCTCCTCAAAGAACAGCACTGATATTAGGTTCAAAGG  
 TTACCCACGAGATGAGGCAGGGTCTCCACAACATGGAAGATGTCTATGAAGTATTGAAAACCTCCATCT  
 AACCCAAAGAAGCAAGGCCAAATCTCAGAAGAGTATATGCAAACGGTTTTG

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG220499 representing NM\_000369  
 Red=Cloning site Green=Tags(s)

MRPADLLQLVLLLDLPRDLGGMGCSPPCEHQEEDFRVTCKDIQRIPSLPSTQTLKLIETHLRTIPSH  
 AFSNLPNISRIYVSIDVTLQQLSHSFYNLSKVTHIEIRNTRNLTYIDPDALKELPLLKFLGIFNTGLKM  
 FPDLTKVYSTDIFFILEITDNPYMTSIPVNAFQGLCNETLTLKLYNNGFTSVQGYAFNGTKLDAVYLNKN  
 KYLTVIDKDAFGGVYSGPSLLDVSQTSVTALPSKGLEHLKELIARNTWTLKKLPLSLSFLHLTRADLSYP  
 SHCCAFKNQKKIRGILESLMCNESSMSLRQRKSVNALNSPLHQEYEENLGDIVGYKEKSKFQDTHNNA  
 HYYVFFEEQEDEIIGFGQELKNPQEETLQAFDSHYDYTICGDSMDVCTPKSDEFNCPEDIMGYKFLRIV  
 VWFVSLALLGNVFLILLTSHYKLNVPFLMCNLAFAFCMGMYLLLIASVDLYTHSEYNNHAIDWQT  
 GPGCNTAGFFTFASELSVYTLTVITLERWYAITFAMRLDRKIRLRHACAIMVGGWVCCFLALLPLVGI  
 SSYAKVSIICLPMDETETPLALAYIVFVLTNIVAFVIVCCCVYKIYITVRNPQYNPGDKDTIAKRMVLI  
 FTDFICMAPISFYALSAILNKPLITVSNKILLVLFYPLNSCANPFLYAIFTKAFQRDVFIKSKFGICK  
 RQAQAYRGQRVPPKNSTDIQVQVTHEMRQGLHNMEDVYELIENSHLTPKKQGQISEEYMQTVL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000369

**ORF Size:** 2292 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_000369.5](#)

**RefSeq Size:** 4410 bp

**RefSeq ORF:** 2295 bp

**Locus ID:** 7253

**UniProt ID:** [P16473](#)

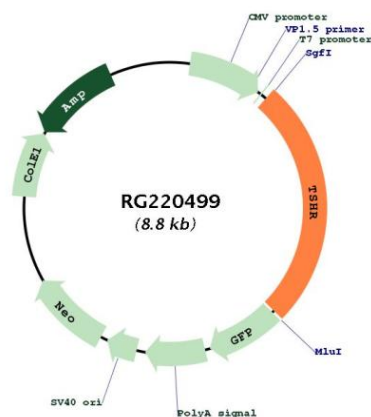
**Cytogenetics:** 14q31.1

**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Protein Pathways:** Autoimmune thyroid disease, Neuroactive ligand-receptor interaction

**Gene Summary:** The protein encoded by this gene is a membrane protein and a major controller of thyroid cell metabolism. The encoded protein is a receptor for thyrothopin and thyrostimulin, and its activity is mediated by adenylate cyclase. Defects in this gene are a cause of several types of hyperthyroidism. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2008]

## Product images:



Circular map for RG220499