

## Product datasheet for **RG212718**

### HRH1 (NM\_001098213) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HRH1 (NM_001098213) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HRH1
Synonyms:	H1-R; H1R; HH1R; hisH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG212718 representing NM\_001098213  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCCTCCCAATTCCTCCTGCCTCTTAGAAGACAAGATGTGTGAGGGCAACAAGACCACTATGGCCA  
 GCCCCAGCTGATGCCCTGGTGGTGGTCTGAGCACTATCTGCTGGTACAGTAGGGCTCAACCTGCT  
 GGTGCTGTATGCCGTACGGAGTGAGCGGAAGCTCCACACTGTGGGGAACCTGTACATCGTCAGCCTCTCG  
 GTGGCGGACTTGATCGTGGGTGCCGTGCTCATGCCTATGAACATCCTCTACCTGCTCATGTCCAAGTGGT  
 CACTGGGCGCTCTCTGCCTCTTTGGCTTTCCATGGACTATGTGGCCAGCACAGCGTCCATTTTCAG  
 TGTCTTCATCCTGTGCATTGATCGCTACCGCTCTGTCCAGCAGCCCTCAGGTACCTAAGTATCGTACC  
 AAGACCCGAGCCTCGGCCACCATTTCTGGGGCCTGGTTTCTCTTTTCTGTGGTTATTCCCATTCTAG  
 GCTGGAATCACTTCATGCAGCAGACCTCGGTGCGCCGAGAGGACAAGTGTGAGACAGACTTCTATGATGT  
 CACCTGGTTCAAGGTCATGACTGCCATCATCAACTTCTACCTGCCACCTTGCTCATGCTCTGGTCTAT  
 GCCAAGATCTACAAGGCCGTACGACAACACTGCCAGCACCGGGAGCTCATCAATAGGTCCCTCCCTTCT  
 TCTCAGAAATTAAGCTGAGGCCAGAGAACCCCAAGGGGGATGCCAAGAAACCAGGGAAGGAGTCTCCCTG  
 GGAGGTTCTGAAAAGGAAGCCAAAAGATGCTGGTGGTGGATCTGTCTTGAAGTACCATCCCAAACCCCC  
 AAGGAGATGAAATCCCGAGTTGTCTTCAGCCAAGAGGATGATAGAGAAGTAGACAACTCTACTGCTTTC  
 CACTTGATATTGTGCACATGCAGGCTGCGGCAGAGGGGAGTAGCAGGGACTATGTAGCCGTCAACCGGAG  
 CCATGGCCAGCTCAAGACAGATGAGCAGGCCTGAACACACATGGGGCCAGCGAGATACAGAGGATCAG  
 ATGTTAGGTGATAGCCAACTCTTCTCTGAACGGACTCAGATACCACCACAGAGACAGCACCAGGCAAAG  
 GCAAATTGAGGAGTGGTCTAACACAGGCCTGGATTACATCAAGTTTACTTGAAGAGGCTCCGCTCGCA  
 TTCAAGACAGTATGTATCTGGGTTGCACATGAACCGCGAAAGGAAGGCCGCCAAACAGTTGGGTTTTATC  
 ATGGCAGCCTTATCCTCTGCTGGATCCCTTATTTTCATCTTCTTTCATGGTCATTGCCTTCTGCAAGAACT  
 GTTGCAATGAACATTTGCACATGTTCCACATCTGGCTGGGCTACATCAACTCCACACTGAACCCCTCAT  
 CTACCCCTTGTGCAATGAGAAGTCAAGAAGACATTCAAGAGAATTCTGCATATTCGCTCC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG212718 representing NM\_001098213  
 Red=Cloning site Green=Tags(s)

MSLPNSSCLEDKMCENKTTMASPQLMPLVVVLSITICLVTVGLNLLVLYAVRSEKRLHTVGNLYIVSLS  
 VADLIVGAVVMPMNILYLLMSKWSLGRPLCLFWLSMDYVASTASIFSVFILCIDRYRSVQQPLRYLKYRT  
 KTRASATILGAWFLSFLWVPIILGWNHFMQQTSVRREDKCETDFYDVTWFKVMTAIFNYLPTLLMLWFY  
 AKIYKAVRQHCQHRELINRSLPSFSEIKLRPENPKGDAKKPGKESPWVLRKPKDAGGGSVLKSPSQTP  
 KEMKSPVVFSEQEDDREVDKLYCFPLDIVHMQAAAEGSSRDYVAVNRSHGQLKTDEQGLNTHGASEI SEDQ  
 MLGDSQSFSRTDSDTTTETAPGKGLRSGSNTGLDYIKFTWKRLRSHRQYVYVGLHMRERKAQKQLGFI  
 MAAFILCWIPYFIFFMVIAFCNCCNEHLHMFTIWLGYINSTLNPLIYPLCNENFKTKFRILHIRS

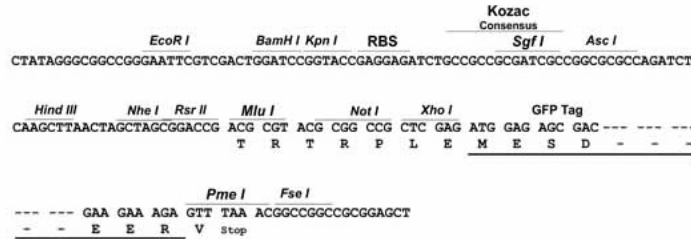
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

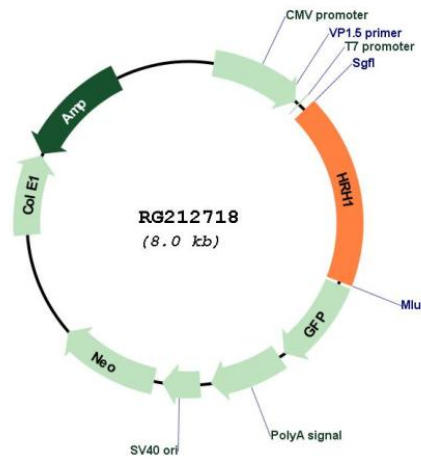
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001098213  
 ORF Size: 1461 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001098213.2</a>
<b>RefSeq Size:</b>	4578 bp
<b>RefSeq ORF:</b>	1464 bp
<b>Locus ID:</b>	3269
<b>UniProt ID:</b>	<a href="#">P35367</a>
<b>Cytogenetics:</b>	3p25.3
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, Neuroactive ligand-receptor interaction

**Gene Summary:**

Histamine is a ubiquitous messenger molecule released from mast cells, enterochromaffin-like cells, and neurons. Its various actions are mediated by histamine receptors H1, H2, H3 and H4. The protein encoded by this gene is an integral membrane protein and belongs to the G protein-coupled receptor superfamily. It mediates the contraction of smooth muscles, the increase in capillary permeability due to contraction of terminal venules, the release of catecholamine from adrenal medulla, and neurotransmission in the central nervous system. It has been associated with multiple processes, including memory and learning, circadian rhythm, and thermoregulation. It is also known to contribute to the pathophysiology of allergic diseases such as atopic dermatitis, asthma, anaphylaxis and allergic rhinitis. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Jan 2015]