

Product datasheet for **RG214519**

HRH1 (NM_001098212) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HRH1 (NM_001098212) 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:

>RG214519 representing NM_001098212
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGCCTCCCAATTCCTCCTGCCTCTTAGAAGACAAGATGTGTGAGGGCAACAAGACCACTATGGCCA
 GCCCCAGCTGATGCCCTGGTGGTGGTCTGAGCACTATCTGCTGGTACAGTAGGGCTCAACCTGCT
 GGTGCTGTATGCCGTACGGAGTGAGCGGAAGCTCCACACTGTGGGGAACCTGTACATCGTCAGCCTCTCG
 GTGGCGGACTTGATCGTGGGTGCCGTGTCATGCCTATGAACATCCTCTACCTGCTCATGTCCAAGTGGT
 CACTGGGCGCTCTCTGCCTCTTTGGCTTTCCATGGACTATGTGGCCAGCACAGCGTCCATTTTCAG
 TGTCTTCATCCTGTGCATTGATCGCTACCGCTCTGTCCAGCAGCCCTCAGGTACCTAAGTATCGTACC
 AAGACCCGAGCCTCGGCCACCATTTCTGGGGCCTGGTTTCTCTTTTCTGTGGTTATTCCCATTCTAG
 GCTGGAATCACTTCATGCAGCAGACCTCGGTGCGCCGAGAGGACAAGTGTGAGACAGACTTCTATGATGT
 CACCTGGTTCAAGGTCATGACTGCCATCATCAACTTCTACCTGCCACCTTGCTCATGCTCTGGTCTAT
 GCCAAGATCTACAAGGCCGTACGACAACACTGCCAGCACCGGGAGCTCATCAATAGGTCCCTCCCTTCT
 TCTCAGAAATTAAGCTGAGGCCAGAGAACCCCAAGGGGGATGCCAAGAAACCAGGGAAGGAGTCTCCCTG
 GGAGGTTCTGAAAAGGAAGCCAAAAGATGCTGGTGGTGGATCTGTCTTGAAGTACCATCCCAAACCCCC
 AAGGAGATGAAATCCCGAGTTGTCTTACGCAAGAGGATGATAGAGAAGTAGACAACTCTACTGCTTTC
 CACTTGATATTGTGCACATGCAGGCTGCGGCAGAGGGGAGTAGCAGGGACTATGTAGCCGTCAACCGGAG
 CCATGGCCAGCTCAAGACAGATGAGCAGGGCCTGAACACACATGGGGCCAGCGAGATACAGAGGATCAG
 ATGTTAGGTGATAGCCAACTCTTCTCTGAACGGACTCAGATACCACCACAGAGACAGCACCAGGCAAAG
 GCAAATTGAGGAGTGGTCTAACACAGGCCTGGATTACATCAAGTTTACTTGAAGAGGCTCCGCTCGCA
 TTCAAGACAGTATGTATCTGGGTTGCACATGAACCGCGAAAGGAAGGCCGCCAAACAGTTGGGTTTTATC
 ATGGCAGCCTTATCCTCTGCTGGATCCCTTATTTTCATCTTCTTTCATGGTCATTGCCTTCTGCAAGAACT
 GTTGCAATGAACATTTGCACATGTTCCACATCTGGCTGGGCTACATCAACTCCACACTGAACCCCTCAT
 CTACCCCTTGTGCAATGAGAAGTCAAGAAGACATTCAAGAGAATTCTGCATATTCGCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG214519 representing NM_001098212
 Red=Cloning site Green=Tags(s)

MSLPNSSCLEDKMEGNKTTMASPQLMPLVVVLSTICLVTVGLNLLVL YAVRSEKRLHTVGNLYIVSLS
 VADLIVGAVVMPMNILYLLMSKWSLGRPLCLFWLSMDYVASTASIFSVF ILCIDRYRSVQQPLRYLKYRT
 KTRASATILGAWFLSFLWVPIILGWNHFMQQTSVRREDKCETDFYDVTWFKVMTAIFNYLPTLLMLWFY
 AKIYKAVRQHCQHRELINRSLPSFSEIKLRPENPKGDAKKPGKESPWVLRKPKDAGGGSVLKSPSQTP
 KEMKSPVVF SQEDDREVDKLYCFPLDIVHMQAAAEGSSRDYVAVNRSHGQLKTDEQGLNTHGASEI SEDQ
 MLGDSQSFSRTDSDTTTETAPGKGLRSGSNTGLDYIKFTWKRLRSHSRQYVSGLHMNRERKAAKQLGFI
 MAAFILCWIPYFIFFMVIAFCNCCNEHLHMFTIWLGYINSTLNPLIYPLCNENFKKTFKRILHIRS

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
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_001098212.2
RefSeq Size:	4298 bp
RefSeq ORF:	1464 bp
Locus ID:	3269
UniProt ID:	P35367
Cytogenetics:	3p25.3
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	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]