

## Product datasheet for **RN216431**

### Hrh3 (NM\_001270570) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Hrh3 (NM\_001270570) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Hrh3  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN216431 representing NM\_001270570  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGC**C

ATGGAGCGCGCGCCGCCGACGGGCTGATGAACGCGTCGGCACTCTGGCCGGAGAGCGCGGGCTGCAG  
CGGGGGCGCGCGCTTCTCGGCTGCCTGGACCGCTGTCCTGGCTGCGCTCATGGCGTGCATCGTGGC  
CACAGTACTGGCAACGCGCTGGTCACTGCTCGCCTTCGTGGCGGATTGAGCCCTCCGACCCAGAACAAC  
TTCTTTCTGCTCAACCTCGCCATCTCCGACTTCCTCGTGGGTGCCTTCTGCATCCCATTGTACGTACCCT  
ATGTGCTGACCGCCGTTGGACCTTCGGCCGGGCGCTCTGCAAGCTGTGGCTGGTGGTAGACTACCTACT  
GTGTGCCTCCTCGGTCTTCAACATCGTACTCATCAGCTATGACCGATTCTGTGAGTCACTCGAGCTGTC  
TCCTACAGGGCCAGCAGGGGACACGAGACGGGCCGTTCCGAAAGATGGCACTGGTGTGGGTGCTGGCCT  
TCCTGCTGTATGGGCTGCCATCCTGAGTTGGGAGTACCTGTCTGGTGGCAGTTCATCCCGAGGGCCA  
CTGCTATGCTGAGTTCTTCAACTGGTACTTTCTCATCAGGCCTCCACCCTCGAGTTCTTACGCCCC  
TTCTCAGCGTTACCTTCTTCAACCTCAGCATCTACCTGAACATCCAGAGGCGCACCCGCTTCGGCTTG  
ATGGGGCCGTGAGGCTGGCCAGAACCCACCAGATGCCAGCCCTCGCCACCTCCAGCTCCCCCAG  
CTGCTGGGGCTGCTGGCCAAAAGGGCATGGCGAGGCCATGCCGTTGCACAGGGGCTCCAAGCCATCAGCA  
TCTTCAGCATCCCTGGAGAAGCGCATGAAGATGGTGTCCAGAGCATACCCAGCGCTTCGGGCTGTCG  
GGGACAAGAAGGTGGCCAAGTCGCTGGCCATCATCGTGAGCATCTTTGGGCTCTGCTGGGCGCCGTACAC  
GCTCCTAATGATCATCCGAGCTGCTTGGCCATGGCCGCTGCATCCCCGATTACTGA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-RsrII  
**ACCN:** NM\_001270570  
**Insert Size:** 1035 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<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>	<u>NM_001270570.1, NP_001257499.1</u>
<b>RefSeq Size:</b>	1956 bp
<b>RefSeq ORF:</b>	1035 bp
<b>Locus ID:</b>	85268
<b>Cytogenetics:</b>	3q43
<b>Gene Summary:</b>	<p>This gene encodes a histamine H3 receptor that belongs to the superfamily of G-protein coupled receptors. This protein functions as a presynaptic autoreceptor on histamine neurons in the brain, and a presynaptic heteroreceptor in nonhistamine-containing neurons in both the central and peripheral nervous systems. It is deemed a great target for the development of therapeutics for numerous disorders, including obesity, epilepsy, and such cognitive diseases as attention deficit hyperactivity disorder and Alzheimer's disease. Several alternatively spliced transcript variants encoding different isoforms, with different brain expression patterns and signaling properties, have been described for this gene. [provided by RefSeq, Jul 2012]</p> <p>Transcript Variant: This variant (8) is alternatively spliced at the 3' end and uses an alternate acceptor splice site at the 3' terminal exon compared to variant 1. The latter causes a frame-shift, and a shorter isoform (8) containing 6 transmembrane domains and missing part of the third intracellular loop compared to isoform H3A.</p>