

## Product datasheet for **RG209571**

### **HAT1 (NM\_001033085) Human Tagged ORF Clone**

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | HAT1 (NM_001033085) Human Tagged ORF Clone                                     |
| Tag:                      | TurboGFP   |
| Symbol:                   | HAT1   |
| Synonyms:                 | histone acetyltransferase 1; KAT1  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| ORF Nucleotide Sequence:  | >RG209571 representing NM_001033085<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTCCGTGTTGAATATGCATCTAAAGTTGATGAGAACTTTGACTGTGTAGAGGCAGATGATGTTGAGG  
GCAAAATTAGACAAATCATTCCACCTGGATTTGCACAAACACGAATGATTCCTTTCTTTACTGGAAAA  
GGAAGTTGATTTCAAGCCATTCGGAACCTTACTTCATACCTACTCAGTTCTCAGTCCAACAGGAGGAGAA  
AACTTTACCTTTTTCAGATATATAAGGCTGACATGACATGTAGAGGCTTTCGAGAATATCATGAAAGGCTTC  
AGACCTTTTTGATGTGGTTTATTGAAACTGCTAGCTTTATTGACGTGGATGATGAAAGATGGCACTACTT  
TCTAGTATTTGAGAAGTATAATAAGGATGGAGCTACGCTCTTTCGACCGTAGGCTACATGACAGTCTAT  
AATTACTATGTGTACCCAGACAAAACCCGGCCACGTGTAAGTCAGATGCTGATTTTGACTCCATTTCAAG  
GTCAAGGCCATGGTGCTCAACTTCTTGAACAGTTCATAGATACTACACTGAATTTCTACAGTTCTTGA  
TATTACAGCGGAAGATCCATCCAAAAGCTATGTGAAATTACGAGACTTTGTGCTTGTGAAGCTTTGTCAA  
GATTTGCCCTGTTTTCCCGGAAAAATTAATGCAAGGATTCAATGAAGATATGGCGATAGAGGCACAAC  
AGAAGTTCAAAAATAAATAAGCAACACGCTAGAAGGTTTATGAAATTCCTCGACTACTGGTAACTGACAT  
GAGTGTGCCGAACAATACAGAAGCTACAGACTGGATATTAAGAAGACTAATTAGCCCATATAAGAAA  
AAGCAGAGAGATCTTGCTAAGATGAGAAAATGTCTCAGACCAGAAGAACTGACAAACCAGATGAACCAA  
TAGAAAATAAGCATGCAACATGAACAGCTGGAAGAGATTTTCAGGAACACTGTGGAAGATTACCGGCGTGT  
TATTGAACGACTTGCTCAAGAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG209571 representing NM\_001033085  
 Red=Cloning site Green=Tags(s)

MFRVEYASKVDENFDCVEADDVEGKIRQIIPPGFCTNTNDFLSLLEKEVDFKPFGLTLLHTYSVLSPTGGE  
 NFFTFQIYKADMTCRGFREYHERLQTFLMWFIEATSFIDVDDERWHYFLVFEKYNKDGATLFFATVGYMTVY  
 NYYVYPDKTRPRVSQMLILTPFQGGHGAQLLETVHRYYTEFPTVLDITAEADPSKSYVKLRDFVLVKLCQ  
 DLPCFSREKLMQGFNEDMAIEAQQKFKINKQHARRVYEILRLLVTDMSDAEQYRSYRLDIKRRLISPYKK  
 KQRDLAKMRKCLRPEELTNQMNQIEISMQHEQLEESFQELVEDYRRVIERLAQE

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001033085

**ORF Size:** 1002 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.

**RefSeq:** [NM\\_001033085.1](#), [NP\\_001028257.1](#)

**RefSeq Size:** 1596 bp

**RefSeq ORF:** 1004 bp

**Locus ID:** 8520

**Cytogenetics:** 2q31.1

**Protein Families:** Druggable Genome

**Gene Summary:** The protein encoded by this gene is a type B histone acetyltransferase (HAT) that is involved in the rapid acetylation of newly synthesized cytoplasmic histones, which are in turn imported into the nucleus for de novo deposition onto nascent DNA chains. Histone acetylation, particularly of histone H4, plays an important role in replication-dependent chromatin assembly. Specifically, this HAT can acetylate soluble but not nucleosomal histone H4 at lysines 5 and 12, and to a lesser degree, histone H2A at lysine 5. Alternatively spliced transcript variants have been identified for this gene. [provided by RefSeq, Jun 2009]

### Product images:



Circular map for RG209571