

## Product datasheet for **MG225877**

### Hace1 (NM\_172473) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hace1 (NM_172473) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hace1
Synonyms:	1700042J16Rik; A730034A22Rik; BC025474
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>MG225877 representing NM\_172473  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGAGAGCGATGGAGCAGCTCAACCGTCTGACGCGCTCGCTGCGCCGCGCGCACCCGTGGAGCTGC  
CCGAGGATAATGAGACTGCTGTTTACACACTGATGCCAATGGTGTGGCCGACCAGCACAGGTCTGTTTC  
TGAACCTCTATCAAATCAAATTTGATGTCAATTATGCATTGCGACGTGTGAAGAGAAGCTTGCTTCAC  
ATTGCTGCAAACGTGGATCTGTGGAATGCTTGGTTCTTCTGTTGAAGAAAGCGCAAACCTAACTATC  
AAGATATTTAGGCTGTACACCCCTTCTCTCGCTGCTAGAAAAGGACAGAAAGAAATGCATGAGTAAAT  
ACTGGAGTACAGTGGGATGTCAACATTTGTAATAATGAAGGCCTTACAGCAATACACTGGCTGGCTGTG  
AATGGGAGGACAGAGCTCCTCCATGACCTCGTCAACACGTCACAGATGTGGATGTGGAGGATGCCATGG  
GGCAGACAGCGCTACACGTAGCCTGCCAGAACGGGCACAAAACGACAGTGCAGTGTCTGCTAGACAGCGG  
TGCTGATATTAACAGGCCGAATGTATCAGGAGCCACGCCACTGTACTTTGCTTGCAGTCAATGGTCAAGAG  
GATACTGCACAGATTTCTCTATTACGAGGAGCCAAATATTTACCAGATAAAAAATGGAGTAAACCCCTCTAG  
ATCTATGTGTACAGGGTGGTTACGGACAGACTTGTGAAGTGTAAATTCAGTACCACCCGAGGCTTTTCCA  
GACTATTGTTCAAATGACACAGAATGAAGACCTTCGGGAAAACATGTTACGGCAAGTTCTGCAGCATTTG  
TCTCAGCAAAGTGAAGCCAGTACCTAAAGATCCTGACAGGCCTTGTGAAGTTGCTACGACAAATGGCC  
ATAAGCTGCTTAGTTTATCTAGCAATTATGATGCGCAGATGAAGAGCCTTTTGAGGATTGTGAGGATATT  
TTGTCATGTCTTTCGAATTGGTCCCTCATCTCCAGTAATGGAATCGATATGGGCTACAATGGAAATAAA  
ACTCCAAGAAGCCAGGTGTTCAAGCCTTTGGAATTGCTTTGGCACTCATTGGATGAATGGTTAGTTTTAA  
TAGCCACAGAATTAATGAAAAACAAAGAGGATTCAACAGATATTACTTCTATCTTGCTGAAACAAAAAGG  
CCAGGATCAAGAGGCCCTTCTCTTTCTGCAATTTGAGCCACCAGGCCCTGGGAGCTATGAAAGCCTGCC  
CCTGGTCCAGGGACTCCAAGCCAGAGGTGCTTGCAAGGGAGCAGGAAGCCAGTGCAGCTGTCAAGACG  
TCATCTGTGACAGCCAACCGGCTGAGTGTGCTGCTCATTCAAGCCTTCTACATGTGCTGTTCTGTGAGAT  
GCCTCCAGGAATGACTTCACCTCGTTTCATTGAGTTTGTCTGCAAGCATGATGAAGTATTGAAATGCTTT  
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AGGACAGCCGGACTCAGACATGGTCCACAGACCAGTGAAGTGAAGACGATATCCTCCTGGTTCACAGAGAT  
TCTATTTTAGGAGTAGCTGTGAAATTGTATCAAAGCAAACGTGCAAAAGCTAAAGCAGGGGATTGCTG  
TACGATTTTCATGGAGAAGAAGGCATGGGTCAAGGCGTTGTGCGTGAATGGTTTGATATTCTGTCTAATGA  
GATCGTCAACCTGACTATGCACTGTTCACCCAGTCAGCAGACGGAAACAACTTTCCAGCCAAACAGCAAC  
TCCTATGTCAATCCTGATCACTTGAACATTTCCGGTTTGTGGACAGATCTTGGGGTAGCTTTGAACC  
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GCGTATGACAAGAGCCATTCAGCCGAGATCAATGCGTTTTTACAGGGTTTTCATATGTTTATCCCGCCT  
TCCCTCATACAACCTGTTTGACGAGTATGAATTGGAGCTACTGCTTTCTGGCATGCCGGAATTTGATGTAA  
ATGATTGGATAAAAAATACAGAATACACAAGTGGCTATGAAAGAGAAGATCCAGTTATTCAGTGGTTCTG  
GGAAGTTGTGGAAGACATTAACAAGAAGAAAGAGTTCTTCTCTTGCAGTTGTTACTGGCAGTTCCAGG  
GTCCCGCATGGTGGCTTTGCCAATATTATGGGTGGAAGTGGTTTGAACAACTTTACAATTGCTGTGTC  
CATATACTCCAAATCTTTACCAACTTCCAGCACATGCATCAACATGCTCAAGTTACCTGAATACCCAAG  
TAAAGAAATACTCAAGGACAGACTCCTTGTAGCACTGCATTGTGGCAGCTATGGTTATACAATGGCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG225877 representing NM\_172473  
 Red=Cloning site Green=Tags(s)

MERAMEQLNRLTRSLRRARTVELPEDNETAVYTLMPMVMADQHRSVSELLSNSKFDVNYAFGRVKRSLH  
 IAANCGSVECLVLLLKKGANPNYQDISGCTPLHLAARNGQKCKMSKLLAYSADVNICNNEGLTAIHWLAV  
 NGRTELLHDLVQHVTDDVEDAMGQALHVACQNGHKTIVQCLLDGADINRPNVSGATPLYFACSHGQR  
 DTAQIILLRGAKYLPDKNGVTPDLDCVQGGYGQTCCEVL IQYHPRLFQTI VQMTQNE DLRENMLRQVLQHL  
 SQQSESQYLKILTGLAEVATTNGHKLLSLSSNYDAQMSLLRIVRIFCHVFRIGPSSPSNGIDMGYNGNK  
 TPRSQVFKPELELLWHSLEWLVIATELMKNKEDSTDITSILLKQKQDQEAPSLSAFEPGPGSYESLP  
 PGPGDSKPEVLAGEQEASADCQDVISVTANRLSAVIQAFYMCCSCQMPPGMTSPRFIEFVCKHDEVKCF  
 VNRNPKIIFDHFHFLLECEPELMSRFMHIKAQPFKDRCEWFYEHLSHGQPDSDMVHRPVSENDILLVHRD  
 SIFRSSCEIVSKANCAKLKQGI AVR FHGEEGMGQGVVREWF DILSNEIVNPDYALFTQSADGTTFPNSN  
 SYVNPDLNRYFRFAGQILGLALNHRQLVNIYFTRSFYKHILGIPVNYQDVASIDPEYAKNLQWILDNDIS  
 DLGLELTF SVETDVF GAMEEVLPKPGGGSILVTQNNKAEYVQLVTELRMTRAIQPQINAF LQG FHMFI PP  
 SLIQLFDEYELELLL SGMPEIDVNDWIKNTEYTSYEREDPVIQWFWEVVEDITQEERVLLLQFVTGSSR  
 VPHGGFANIMGGSLQNF TIAAVPYTPNLLPTSSTCINMLKLPEYPSKEILKDRLLVALHCGSYGYTMA

TRTRPLE - GFP Tag - V

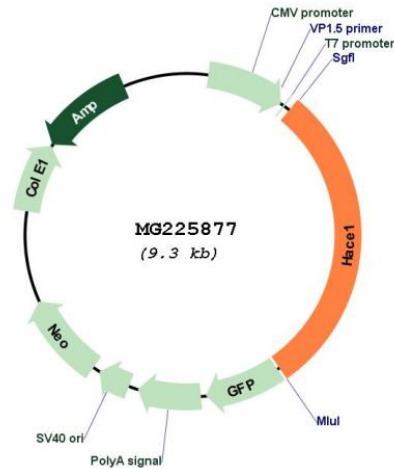
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_172473

**ORF Size:** 2727 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\\_172473.3](#), [NP\\_766061.2](#)

**RefSeq Size:** 3785 bp

**RefSeq ORF:** 2730 bp

**Locus ID:** 209462

**UniProt ID:** [Q3U0D9](#)

**Cytogenetics:** 10 B2

**Gene Summary:**

E3 ubiquitin-protein ligase involved in Golgi membrane fusion and regulation of small GTPases. Acts as a regulator of Golgi membrane dynamics during the cell cycle: recruited to Golgi membrane by Rab proteins and regulates postmitotic Golgi membrane fusion. Acts by mediating ubiquitination during mitotic Golgi disassembly, ubiquitination serving as a signal for Golgi reassembly later, after cell division. Specifically interacts with GTP-bound RAC1, mediating ubiquitination and subsequent degradation of active RAC1, thereby playing a role in host defense against pathogens (By similarity). May also act as a transcription regulator via its interaction with RARB.[UniProtKB/Swiss-Prot Function]