

Product datasheet for **MG226267**

Hic1 (NM_010430) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Hic1 (NM_010430) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Hic1 |
| Synonyms: | AA408311; HIC-1 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



[View online »](#)

ORF Nucleotide
Sequence:

>MG226267 representing NM_010430
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTACAAGAATGCGCCACCATCCCTGGCTTAAGATTCTCATTGGAAGACAGAACCTTCCCCTCCC
 CCCCCCGAATTGGCGCATATAACATATAAATATGTAAGTACTCGGGAGCACTCAGCACAAAACCCAGGTT
 TATGGACTCCCAGTCCGATATCTGAGTCTCCAGGTGGGCACATCTGGAAGCGCGCAACCTGCAAGAT
 CTGCTCAGCTCCGCATCTGCAAGCCTCTTGGCCAGGTGTGCGCCAGAGGTGCGAGCCAGCCGCACACA
 GTCCCCGCGTGGCCGCGAGGTGGCGCCATGGCCGCGCAGCGTCTGCCGTTTCGGCCGCTCCAGATAAG
 AGTGTGCGAAAGCGCGGAGGGGCTGAGACGCGACCAGGACGCGGGGAGGACGGACCAGGCAAGACAGACC
 GACCGGGGCCCCGGCGGAGGGCAGCGCACTGCAGCCACGTCCCCCTGGATCCGCCGCGAGCCGG
 GCCCGGGCTCCGACATGCCCCAGGAGAGTGTGCTGGCAGACGATGCTGGACAGATGGAGGGCC
 TGGCCATTGAGGAGCTACTGCTGCAGCTCAACAATCAGCGCACCAAGGGCTTCTGTGCGACGTGATC
 ATCGTGGTGCAGAATGCCCTCTTCGCGCGCACAGAAGCTGCTGGCGGCCAGCAGCGCCTACCTCAAGT
 CCCTGGTGGTGCATGACAACCTGCTAAACCTGGACCATGACATGGTGGAGCCCGCCGTGTTCCGCTGGT
 GCTGGACTTACCTACACCGCCGCTGACTGACAGTGTGAGGCCGAGCAGCAGCAGCGGTGGCCCCG
 GGCGCGGAGCCGAGCCTGGGCGCTGTGCTGGTGTGCGAGTACCTGCAGATCCCTGACCTCGTGGCTC
 TGTGCAAGAAGCGCTCAAACGCCACGGCAAGTACTGCCACCTGCGGGGAGGAGGAGCGGGCGGGCGG
 CTACGCTCCTACGGGCGCCCGCCGGGGCTTGGGGTGCACGCCGTCATCCAGGCTTGTACTCG
 TCCCGGGCCGGCCACCGCCCGCTGCCCGCAGCCGCGTGGGGCCCGATGCAGCCGTCAACACCC
 ACTCGCTGAGCTATATGCTTCAAGCCGGCCAGCAGCCTCACTCTGCGCCCCGGAGCTCGCTGCTC
 CCGCTTTGCGGCTGGATCTGTCCAAGAAGAGCCCGCCAGGTTCTCGTCCCGAGCGACCGCTTAGT
 GAGCGGAACTGCCTCCACGCCGATAGCCCTCCCGGTGCGGGGCCGAGTCTACAAGGAGCCATCAC
 TCGCCTGCCCGCTGCCGCTTTGCCCTTCCAAAAGCTGGAGGAGGCCGTACCGACTCCAGACCCGTT
 TCGAGGAAGCGGTGGCAGTCCGGGACCCGAGCCCCCGCGCCCGGAGCCTCCAGCCTCCTTACCGC
 TGGATGAAGCAGCAGCCAGGCTGGTATGATGGCGATGAACTGGTCCGGGATCGAGGCTCCCCGGGTG
 AGCGCTGGAGGAGCGCGGTGGGATCCTGCCGCTCACCGGGGCCCCCGCTGGGCTGGTACCCCC
 GCCACGCTACCCGGGAGCCTGGACGGCCAGGCACAGGAGCAGACGGCAGCAGTATAAGAGCAGCAGC
 GAGGAGACCGGTAGCAGCGAAGACCCAGCCACCGGGCCACCTGGAGGGTACCCATGCCCGCACT
 TGGCTTATGGTGAAGCCTGAGAGCTTTGGTGACAACCTGTACGTGTGCATCCCATGTGGCAAAGGCTCCC
 CAGCTCGGAACAGCTGAATGCACACGTGGAGGCTCACGTAGAGGAAGAAGAGGCGTTATATGGCAGGGCA
 GAGGCTGCTGAGGTGGCTGCTGGGGCCCGGCCCTTGGGCCCCCTTTGGTGGCGGTGGGACAAGGTCA
 CTGGGGCCCGGGCGGACTAGGAGAGTGTGCGGCCATACCGCTGCGCGTCTGCGACAAGAGTACAA
 GGACCCGGCCACGCTGAGGCAGCAGAGAAGACACACTGGCTGACAAGGCCCTATCCGTGTACCATCTGC
 GGAAAGAAGTTCACGCAACGCGGAACCATGACACGCCATATGCGCAGCCACTTGGGCTGAAGCCCTTTC
 CGTGGCAGCGTGGCCATGCGCTTACCCGCCAGTATCGCCTCACGGAGCAGTGGCAGTCCACTCTGG
 AGAGAAGCCCTACGAGTCCAGGTGTGCGGTGGCAAGTTTGTCAACAGCGCAACCTCATCAGCCATATG
 AAGATGCACGCTGTAGGTGGCGCGCCGGCGCGCCGGGCGCTGGCTGGCTGGGCGGACTACCTGGCG
 TCCTGGCCCTGACGGCAAGGGCAAGCTCGACTTCCCTGAGGGTGTCTTTGCTGTGGCCCGCTCACAGC
 TGAACAGCTGAGTCTGAAGCAGCAGGACAAGGCAGCTGCTGCCGAGTGTGGCGCAGACCAGCACTTC
 CTGCACGACCCCAAGGTGGCGTGGAGAGCCTTACCCGCTGGCTAAATTCAGTGTGAGCTAGGACTCA
 GCCCAGACAAGGCGGAGAGGTGCTGAGCCAGGTGCGCACTTGGCCGAGGACCGGACAGCCGAACCAT
 CGACCGTTTCTCTCCACC

ACGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG226267 representing NM_010430
 Red=Cloning site Green=Tags(s)

```
MITRMRHHPWLKSSSFEDRTFPSPPPNWRDITYKYVLGSGTQHKTPRFMGLPGPISESPGGHIWKRANLQD
LLSSASASLLAQVCARGRSPAHAHSRVAARWRHGRGVSVCRFGLQIRVCGKRGGAETRPGRGEDGPARQT
DRGPGGRRAAHCSHVPPWIRRQPGPLPTCPPGECAGQTMLDTMEAPGHSRQLLLQLNQRTKGFLCDVI
IVVQNALFRAHKNVLAASSAYLKSLVVDNLLNLDHDMVSPAVFRLVLDYITGRLTDSVEAAAAA AVAP
GAEPSLGAVLAAASYLQIPDLVALCKRRLKRHGKYCHLRGGSGGGYAPYGRPGRGLRAATPVIQACYS
SPAGPPPPAAEPPSGPDAAVNTHCAELYASGPGPAASLCAPERRCSPLCGLDL SKKSPGSSVPERPLS
ERELPPRPDSPPGAGPAVYKEPSLALPPLPPLPFQKLEEA VTPDPFRGSGGSPGPEPPGRPDGSSLLYR
WMKHEPGLGSYGDDELVRDRGSPGERLEERGGDPAASPGGPPLGLVPPRYPGSLDGP GTGADDDYKSSS
EETGSSEDPSPGGHLEGYPCPHLAYGEPESFGDNLVVCIPCGKGFPSSEQLNAHVEAHVEEEEALYGRA
EAAEVAAGAAGLGPFGGGGDKVTGAPGGLGELLRPYRCASCDKSYKDPATLRQHEKTHWLTRYPCTIC
GKKFTQRGTMRHMRSHLGLKPFACDACMRFTROYRLTEHMRHISGEKPYECQVCGGKFAQQRNLSHM
KMHAVGGAAGAAGALAGLGGLPGVPGDGKGLDFPEGVFAVARLTAEQLSLKQKQDKAAAELLAQTTHF
LHDPKVALESYPLAKFTAELGLSPDKAAEVL SQGAHLAAGPDSRTIDRF SPT
```

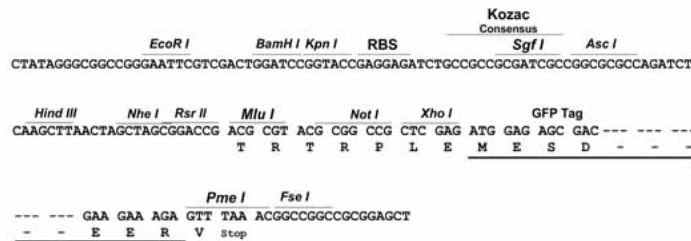
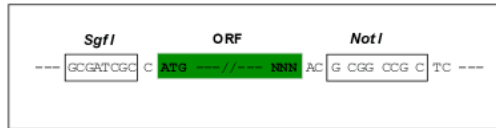
TRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1774_h06.zip

Restriction Sites: SgfI-NotI

Cloning Scheme:

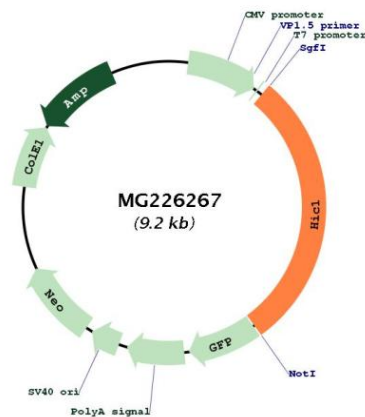
Cloning sites used for ORF Shuttling:



| | |
|-------------------------------|--|
| ACCN: | NM_010430 |
| ORF Size: | 2679 bp |
| 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_010430.2 , NP_034560.2 |
| RefSeq Size: | 4247 bp |
| RefSeq ORF: | 2682 bp |
| Locus ID: | 15248 |
| Cytogenetics: | 11 45.76 cM |

Gene Summary:

Transcriptional repressor. Recognizes and binds to the consensus sequence '5-[CG]NG[CG]GGGCA[CA]CC-3'. May act as a tumor suppressor. May be involved in development of head, face, limbs and ventral body wall. Involved in down-regulation of SIRT1 and thereby is involved in regulation of p53/TP53-dependent apoptotic DNA-damage responses. The specific target gene promoter association seems to be depend on corepressors, such as CTBP1 or CTBP2 and MTA1. The regulation of SIRT1 transcription in response to nutrient deprivation seems to involve CTBP1. In cooperation with MTA1 (indicative for an association with the NuRD complex) represses transcription from CCND1/cyclin-D1 and CDKN1C/p57Kip2 specifically in quiescent cells. Involved in regulation of the Wnt signaling pathway probably by association with TCF7L2 and preventing TCF7L2 and CTNNB1 association with promoters of TCF-responsive genes. Seems to repress transcription from E2F1 and ATOH1 which involves ARID1A, indicative for the participation of a distinct SWI/SNF-type chromatin-remodeling complex. Probably represses transcription from ACKR3, FGFBP1 and EFNA1.[UniProtKB/Swiss-Prot Function]

Product images:

Circular map for MG226267