

Product datasheet for **MG223872**

Hey2 (NM_013904) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Hey2 (NM_013904) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Hey2
Synonyms: bHLHb32; CHF1; Herp1; hesr2; Hrt2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG223872 representing NM_013904
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGCGCCCTTGTGAGGAAACGACCTCCGAAAGCGACCTGGACGAGACCATCGACGTGGGGAGCGAGA
 ACAATTACCTGGGCACGCTACAAGCTCAGTGATGAGGTCCAATTCACCGACAACACTCTCAGATTAT
 GGCAAGAAAGAAAAGGAGAGGGATCATAGAAAAAGGCGTCGGGATCGAATAAATAACAGTTTATCTGAA
 TTGAGAAGACTAGTGCCAACAGCTTTTGAAAAACAAGGATCTGCCAAGTTAGAAAAGGCTGAAATATTGC
 AAATGACAGTGGATCATTGAAGATGCTCCAGGCTACAGGGGTAAAGGCTACTTTGATGCCCATGCTCT
 TGCCACAGACTTCATGAGCATTGGATCCGAGAGTGCTTGACAGAAGTGGCTAGGTACCTAAGCTCAGTG
 GAAGGCCTTGACCCGTCGGACCCACTACGCGTGCGCCCTTGTCTCATCTCAGCACCTGTGCCTCCCAGC
 GGGAGGCAGCAGTGATGACATCCTCCATGGCCCACCACATCACCCCTTGCAACCTCACCACTGGGCAGC
 TGCTTTCCACCATCTCCCACAGCCCTGCTCCAGCCCAATGGACTCCACACATCAGAGTCAACCCCATGT
 CGCCTATCCACATCTTCAGAAAGTGCCTTCTGCTCATGGCTCTGCTCTCCTCACAGCAACGTTTGCCCATG
 CAGATTCTGCTCTTCGGATGCCATCAGGGGGCACCGTTGCACCCTGCGTGCCACCTCTCTCCACCTCTCT
 TCTGTCTCTTCGGCCACTGTGCATGCCGAGCTGCAGCAGCCACTGCAGCTGCACACAGCTTCCCTCTG
 TCCTTCGACGGGCTTTTCCCATGCTCCCGTCCAATGCAGCGGCAGCAGCCGCTGTTGCTGCTGCAACAG
 CAATCAGCCCACCCTTGTGGTATCCGACGCTCCAGTCCCTCAGCAGACAAGCACTGGGACAAACAATAA
 ACCTTACCAACCCTGGGGACAGAAGTTGGAGCCTTT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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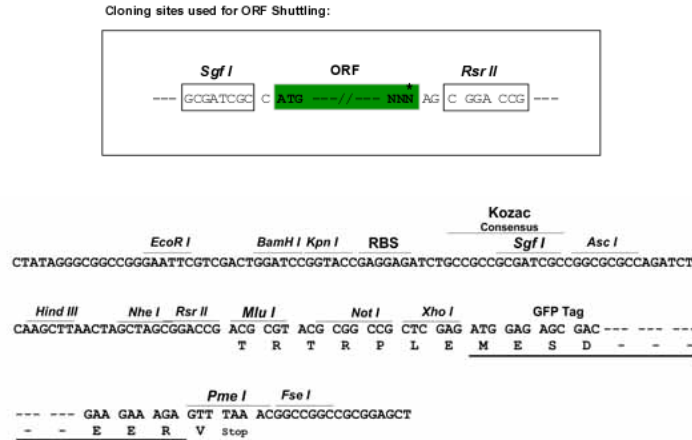
Protein Sequence: >MG223872 representing NM_013904
 Red=Cloning site Green=Tags(s)

MKRPCEETTSSESDLDETIDVGSENNYPGHATSSVMRSNSPTTTSQIMARKKRRGIIIEKRRRDRINNSLSE
 LRRLVPTAFEKQGSAKLEKAEILQMTVDHLKMLQATGGKGYFDAHALATDFMSIGFRECLTEVARYLSSV
 EGLDPSDPLRVRLVSHLSTCASQREAAVMTSSMAHHHPLHPHHWAAAFHHLPTALLQPNGLHTSESTPC
 RLSTSSSEVPSAHGSALLTATFAHADSALRMPSSGGTVAPCVPLSTSLLSL SATVHAAAAATAAAHSFPL
 SFAGAFPMLPSNAAAAAVAAATAISPPLSVSAASSPQQTSTGTNNKPYQPWGTEVGAF

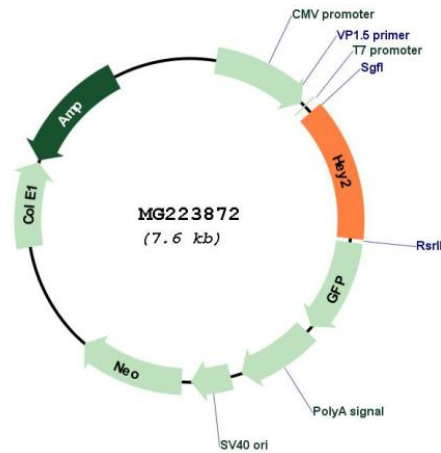
SGPTRRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_013904

ORF Size: 1017 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:	<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_013904.1 , NP_038932.1
RefSeq Size:	2549 bp
RefSeq ORF:	1020 bp
Locus ID:	15214
UniProt ID:	Q9QUS4
Cytogenetics:	10 A4
Gene Summary:	Transcriptional repressor which functions as a downstream effector of Notch signaling in cardiovascular development. Specifically required for the Notch-induced endocardial epithelial to mesenchymal transition, which is itself critical for cardiac valve and septum development. May be required in conjunction with HEY1 to specify arterial cell fate or identity. Promotes maintenance of neuronal precursor cells and glial versus neuronal fate specification. Binds preferentially to the canonical E box sequence 5'-CACGTG-3'. Represses transcription by the cardiac transcriptional activators GATA4 and GATA6 and by the neuronal bHLH factors ASCL1/MASH1 and NEUROD4/MATH3.[UniProtKB/Swiss-Prot Function]