

Product datasheet for **MG227003**

Hand2 (NM_010402) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hand2 (NM_010402) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hand2
Synonyms:	AI225906; AI661148; bHLHa26; dHAND; Ehand2; Hed; Th2; Thing2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG227003 representing NM_010402 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGTCTGGTGGGGGGCTTTCCCCACCACCCCGTGGTGCACCATGAGGGCTACCCATTCGCCGACGCCG
CCGCCCGCTGCCGCCCGCCGCCAGCCGCTGCAGCCACGAGGAGAACCCTACTTCCACGGCTGGCT
TATTGGCCACCCGGAGATGTCGCCCCCGACTACAGTATGGCCCTGTCTACAGCCCCGAGTACGCCAGC
GGTGCCCGGGCCTGGACCACTCCATTATGGGGGAGTGCCGCCCGCCGGCCCTCCCGCCTGGGGG
GGCCGCGCCCGGTGAAGCGCCGGGCACCGCCAACCGCAAGGAGCGGCGCAGGACTCAGAGCATCAACAG
CGCCTTCGCCGAGCTGCGCGAGTGATCCCAAGTGCCCGCGACACCAAACCTCCAAGATCAAGACA
CTGCGCCTGGCCACCAGCTACATCGCCTACCTCATGGATCTGCTGGCCAAGGACGACCAGAACGGAGAGG
CGGAGGCCTTCAAGGCGGAGATCAAGAAGACCGACGTGAAAGAGGAGAAGAGGAAGAAAGAGCTGAATGA
GATCTTAAAAAGCACAGTGAGCAGCAACGACAAGAAAACCAAAGGCCGGACAGGCTGGCCACAGCACGTC
TGGGCCCTGGAGCTCAAGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

Protein Sequence: >MG227003 representing NM_010402
 Red=Cloning site Green=Tags(s)

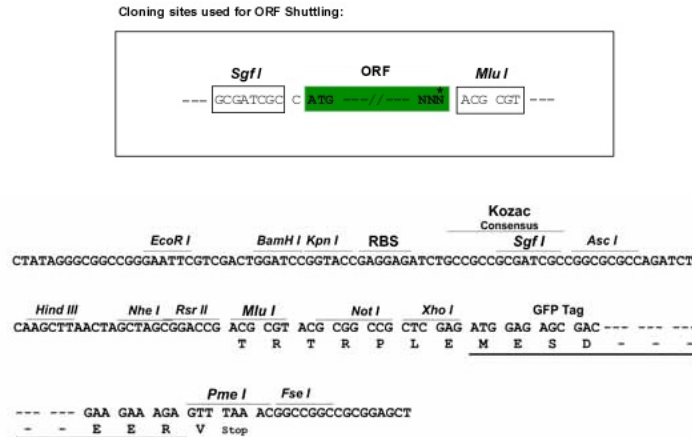
MSLVGGFPHHPVVHHEGYPFAAAAAAAAAASRCSHEENPYFHGWLIGHPEMSPDYSMALSYSPEYAS
 GAAGLDHSHYGGVPPGAGPPGLGGPRPVKRRGTANRKERRRTQSINSAF AELRECIPNVPADTKLSKIKT
 LRLATSYIAYLMDLLAKDDQNGEAEAFKAEIKKTDVKEEKRKKEKELNEILKSTVSSNDKKTGRTGWPQHV
 WALELKQ

TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1892_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_010402

ORF Size: 651 bp

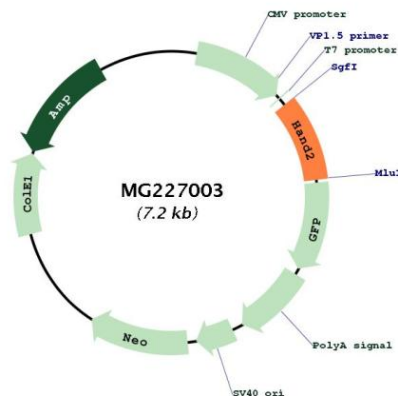
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.

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:	<u>NM_010402.4, NP_034532.3</u>
RefSeq Size:	2235 bp
RefSeq ORF:	654 bp
Locus ID:	15111
UniProt ID:	<u>Q61039</u>
Cytogenetics:	8 29.8 cM
Gene Summary:	Essential for cardiac morphogenesis, particularly for the formation of the right ventricle and of the aortic arch arteries. Required for vascular development and regulation of angiogenesis, possibly through a VEGF signaling pathway. Plays also an important role in limb development, particularly in the establishment of anterior-posterior polarization, acting as an upstream regulator of sonic hedgehog (SHH) induction in the limb bud. Is involved in the development of branchial arches, which give rise to unique structures in the head and neck. Binds DNA on E-box consensus sequence 5'-CANNTG-3'. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG227003