

## Product datasheet for MC208647

### Hand2 (NM\_010402) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hand2 (NM_010402) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Hand2
Synonyms:	AI225906; AI661148; bHLHa26; dHAND; Ehand2; Hed; Th2; Thing2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC208647 representing NM_010402 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGAGTCTGGTGGGGGGCTTTCCCAACCAACCCGTGGTGCACCATGAGGGCTACCCATTCGCCGAGCCG  
CCGCCGCCGCTGCCGCCGCCGCCAGCCGCTGCAGCCACGAGGAGAACCCTACTTCCACGGCTGGCT  
TATTGGCCACCCGAGATGTCGCCCCCGACTACAGTATGGCCCTGTCTACAGCCCCGAGTACGCCAGC  
GGTGCCGCGGGCCTGGACCACTCCATTATGGGGGAGTGCCGCCCGCGCCGGCCCTCCCGCCTGGGGG  
GGCCGCGCCCGGTGAAGCGCCGGGCACCGCAACCGCAAGGAGCGCGCAGGACTCAGAGCATCAACAG  
CGCCTTCGCCGAGCTGCGCGAGTGCATCCCAACGTGCCGCCGACACCAAACTCTCCAAGATCAAGACA  
CTGCGCCTGGCCACCAGCTACATCGCCTACCTCATGGATCTGCTGGCCAAGGACGACCAGAACGGAGAGG  
CGGAGGCCCTTCAAGGCGGAGATCAAGAAGACCGACGTGAAAGAGGAGAAGAGGAAGAAAGAGCTGAATGA  
GATCTTGAAGACACAGTGAGCAGCAACGACAAGAAAACCAAGGCCGGACAGGCTGGCCACAGCACGCTC  
TGGGCCCTGGAGCTCAAGCAG**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms:	<a href="https://cdn.origene.com/chromatograms/ja2319_f06.zip">https://cdn.origene.com/chromatograms/ja2319_f06.zip</a>
Restriction Sites:	SgfI-MluI
ACCN:	NM_010402
Insert Size:	654 bp



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**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](mailto: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](#)

**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_010402.4](#), [NP\\_034532.3](#)

**RefSeq Size:** 2235 bp

**RefSeq ORF:** 654 bp

**Locus ID:** 15111

**UniProt ID:** [Q61039](#)

**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]