

## Product datasheet for **RG224436**

### HAND2 (NM\_021973) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HAND2 (NM_021973) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HAND2
Synonyms:	bHLHa26; dHand; DHAND2; Hed; Thing2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224436 representing NM_021973 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGTCTGGTAGGTGGTTTTCCACCACCCGGTGGTGCACCACGAGGGCTACCCGTTTGCCGCGGCCG  
CCGCCGAGCTGCCGCCGCCGCCAGCCGCTGCAGCCACGAGGAGAACCCTACTTCCATGGCTGGCT  
CATTGGCCACCCGAGATGTCGCCCCCGACTACAGCATGGCCCTGTCTACAGCCCGAGTATGCCAGC  
GGCGCCGCGGCCTGGACCACTCCATTACGGGGGGTGGCGCCGGCGCCGGGCCCGGGCCCTGGGGG  
GGCCGCGCCCGGTGAAGCGCCGAGGCACCGCCAACCGCAAGGAGCGGCGCAGGACTCAGAGCATCAACAG  
CGCCTTCGCCGAAGTGCAGGAGTGCATCCCAAGTACCCGCCGACACCAAACTCTCCAAAATCAAGACC  
CTGCGCCTGGCCACCAGCTACATCGCCTACCTCATGGACCTGCTGGCCAAGGACGACCAGAACGGCGAGG  
CGGAGGCCTTCAAGGCAGAGATCAAGAAGACCGACGTGAAAGAGGAGAAGAGGAAGAAGGAGCTGAACGA  
AATCTTAAAAAGCACAGTGAGCAGCAACGACAAGAAAACCAAGGCCGGACGGGCTGGCCGAGCAGCTC  
TGGGCCCTGGAGCTCAAGCAG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG224436 representing NM\_021973  
 Red=Cloning site Green=Tags(s)

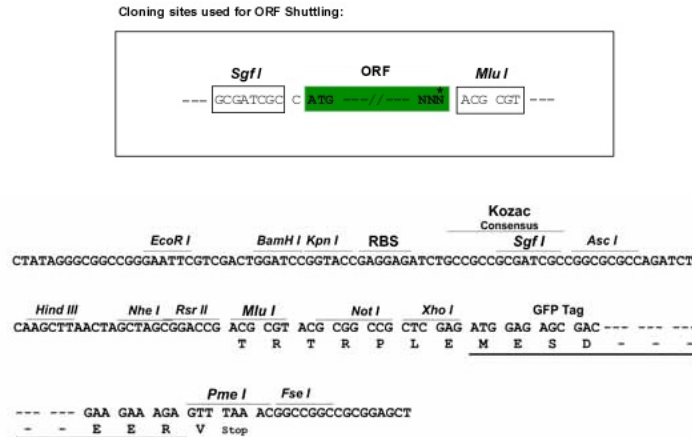
MSLVGGFPHHPVVHHEGYPFAAAAAAAAAASRCSHEENPYFHGWLIGHPEMSPDYSMALSYSPEYAS  
 GAAGLDHSHYGGVPPGAGPPGLGGPRPVKRRGTANRKERRRTQSINSAF AELRECIPNVPADTKLSKIKT  
 LRLATSYIAYLMDLLAKDDQNGEAEAFKAEIKKTDVKEEKRKKEKELNEILKSTVSSNDKKTGRTGWPQHV  
 WALELKKQ

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja2727\\_f04.zip](https://cdn.origene.com/chromatograms/ja2727_f04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_021973

**ORF Size:** 651 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\\_021973.1](#), [NP\\_068808.1](#)

**RefSeq Size:** 1234 bp

**RefSeq ORF:** 654 bp

**Locus ID:** 9464

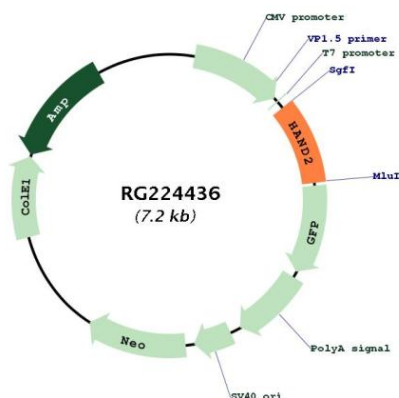
**UniProt ID:** [P61296](#)

**Cytogenetics:** 4q34.1

**Protein Families:** Druggable Genome

**Gene Summary:** The protein encoded by this gene belongs to the basic helix-loop-helix family of transcription factors. This gene product is one of two closely related family members, the HAND proteins, which are asymmetrically expressed in the developing ventricular chambers and play an essential role in cardiac morphogenesis. Working in a complementary fashion, they function in the formation of the right ventricle and aortic arch arteries, implicating them as mediators of congenital heart disease. In addition, this transcription factor plays an important role in limb and branchial arch development. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG224436