

## Product datasheet for **RG214416**

### HOXD13 (NM\_000523) Human Tagged ORF Clone

#### Product data:

|                           |                            |
|---------------------------|----------------------------|
| Product Type:             | Expression Plasmids        |
| Tag:                      | TurboGFP                   |
| Symbol:                   | HOXD13                     |
| Synonyms:                 | BDE; BDS; HOX4I; SPD; SPD1 |
| Mammalian Cell Selection: | Neomycin                   |
| Vector:                   | pCMV6-AC-GFP (PS100010)    |
| E. coli Selection:        | Ampicillin (100 ug/mL)     |

**ORF Nucleotide Sequence:** >RG214416 representing NM\_000523  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCTGCTGACTCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAGCCGCGCCGGGAGCTGGGACATGGACGGGCTGCGGGCAGACGGCGGGGCGCCGGTGGCGCCCCGG  
CCTCTTCTCCTCCTCATCGGTGGCGGGCGCGGGCGGCGGTGAGGCCAGTGCCGCGGCTTTCTCTCCGCGCC  
TGTGTTGCGCCGGGACGATTGCGGGCGGGCGGGCGGGCGGCGGCGGCTGCGGCGGGCGGGCGGCGCA  
GCCTCCGGCTTTGCGTACCCCGGGACCTCTGAGCGCACGGGCTCTTCTCGTCGTCGTCCTCTTCTGCGG  
TTGTAGCGGCGCGCCGGAGGCTCCCCAGCCAAAGAGTGCCAGCACCCACGCCTGCAGCGGCCGCTGC  
AGCGCCCCGAGCGCTCCAGCGCTGGGCTACGGCTACCACTTCGGCAACGGCTACTACAGCTGCCGTATG  
TCGCACGGCGTGGGCTTACAGCAGAATGCGCTCAAGTCATCGCCGACGCTCGCTGGGAGGCTTTCCCG  
TGGAGAAGTACATGGACGTGTGAGGCTGGCGAGCAGCAGCGTACCGCCAACGAGGTGCCAGCGCGAGC  
CAAGGAGGTATCCTTCTACAGGGCTATACGAGCCCTTACAGCAGCTGCCGCGCTATATCGACATGGTG  
TCCACTTTGCGCTCCGGGGAGCCTCGGCACGAGGCTACATCTCCATGGAGGGGTACCACTCTGGACGC  
TGGCTAACGGGTGGAACAGCCAGGTGTACTGCACCAAGGACCAGCCACAGGGGTCCCACTTTTGGAAATC  
TTCCTTTCCAGGGGATGTGGCTCTAAATCAGCCGGACATGTGCGTCTACCGAAGAGGAGGAAGAAGAGA  
GTGCTTACACCAAACTGCAGCTTAAAGAACTGGAGAACGAGTATGCCATTAACAAATTCATTAACAAGG  
ACAAGCGGCGGCTATCTCGGCTGCTACGAACCTATCTGAGAGACAAGTGACCATTTGGTTTCAGAACCG  
AAGAGTGAAGGACAAGAAAATTGTCTCAAGCTCAAAGATACTGTCTCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



**Protein Sequence:**

>RG214416 representing NM\_000523

Red=Cloning site Green=Tags(s)

MSRAGSWMDGLRADGGGAGGAPASSSSSSVAAAAASGQCRGFLSAPVFAAGTHSGRAAAAAAAAAAAAA  
ASGFAYPGTERTGSSSSSSSAVVAARPEAPPAKECPAPTPAAAAAAPPAPALGYGYHFGNGYYS CRM  
SHGVLQQLKSSPHASLGGFPVEKYMDVSLASSVPANEVPARAKEVSFYQGYTSPYQHVPGYIDMV  
STFGSGEPRHEAYISMEGYQSWTLANGWNSQVYCTKDQPGQSHFWKSSFPDVALNQPDVCYRRGRKKR  
VPYTKLQLKELENEYAINKFINKDKRRRISAATNL SERQVTIWFQNRVRKDKKIVSKLKDTVS

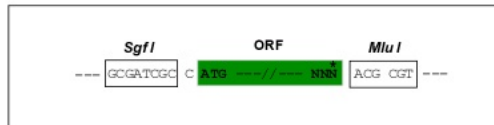
TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



CTATAGGGCGGCGGGAATTCGCTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT

EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI

CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC - - - -

HindIII NheI RsrII MluI NotI XhoI GFP Tag

T R T R P L E M E S D - - - -

PmeI FseI

- - - GAA GAA AGA GTT TAA ACGGCCGCCGCGGAGCT

- - E E R V Stop

**ACCN:**

NM\_000523

**ORF Size:**

1029 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:**

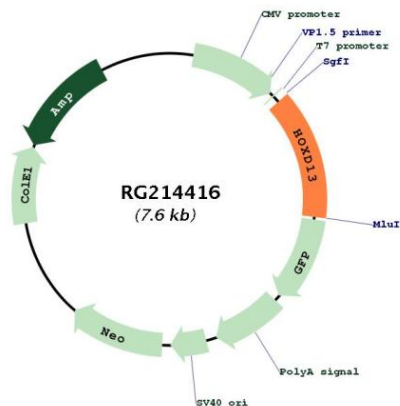
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>                                                                                                                                                                                              |
| <b>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>RefSeq:</b>                | <a href="#">NM_000523.4</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>RefSeq Size:</b>           | 2341 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>RefSeq ORF:</b>            | 1032 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Locus ID:</b>              | 3239                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>UniProt ID:</b>            | <a href="#">P35453</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Cytogenetics:</b>          | 2q31.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Families:</b>      | Druggable Genome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Gene Summary:</b>          | <p>This gene belongs to the homeobox family of genes. The homeobox genes encode a highly conserved family of transcription factors that play an important role in morphogenesis in all multicellular organisms. Mammals possess four similar homeobox gene clusters, HOXA, HOXB, HOXC and HOXD, located on different chromosomes, consisting of 9 to 11 genes arranged in tandem. This gene is one of several homeobox HOXD genes located in a cluster on chromosome 2. Deletions that remove the entire HOXD gene cluster or the 5' end of this cluster have been associated with severe limb and genital abnormalities. Mutations in this particular gene cause synpolydactyly. [provided by RefSeq, Jul 2008]</p> |

Product images:



Circular map for RG214416