

## Product datasheet for **RC221896**

### HOXB8 (NM\_024016) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | HOXB8 (NM_024016) Human Tagged ORF Clone                                    |
| Tag:                      | Myc-DDK   |
| Symbol:                   | HOXB8   |
| Synonyms:                 | Hox-2.4; HOX2; HOX2D  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >RC221896 representing NM_024016<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCTCTTATTTTCGTCAACTCACTGTTCTCCAATACAAAACCGGGGAGTCCCTGCGCCCAATTATT  
ATGACTGCGGCTTCGCCAGGACCTGGGCGGCCGACCCACCGTGGTGTACGGTCCCAGCAGCGGGCGCAG  
CTTCCAGCACCCGTCGAAATCCAGGAGTTCTACCACGGGCGTCGTCGCTGTCCACGGTCCCTACCAG  
CAGAACCCGTGCGCCGTGGCGTGCCACGGGACCCGGCAATTTCTACGGCTACGACCCGCTGCAACGCC  
AGAGCCTATTCGGTGCAGGATCCAGACCTGGTGCAGTACGCAGACTGCAAGCTTGCCGCCCGCAGCGG  
CCTGGGGCAGGAGCCGAGGGCTCCGAGCAGAGCCCGTCGCCACACAGCTCTTCCCTGGATGCGCCCG  
CAAGCCGCCGAGCGCAGGCGAGGCCGACAGACCTACAGCCGCTACCAGACCTGGAGCTGGAGAAGGAGT  
TCCTATTTAATCCCTATCTGACTCGTAAGCGGCGAATCGAGGTATCGCACGCCCTGGGACTGACAGAGAG  
ACAGGTCAAAATCTGGTTCCAGAACCGGAGGATGAAGTGGAAAAAGAGAACAACAAGACAAGTCCCC  
AGCAGCAATGCGAGCAGGAGGAGCTGGAGAAACAGAAGCTGGAGCGGGCCCCAGAGGCGGGCAGCAGG  
GCGACGCGCAGAAGGGCGACAAGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC221896 representing NM\_024016  
 Red=Cloning site Green=Tags(s)

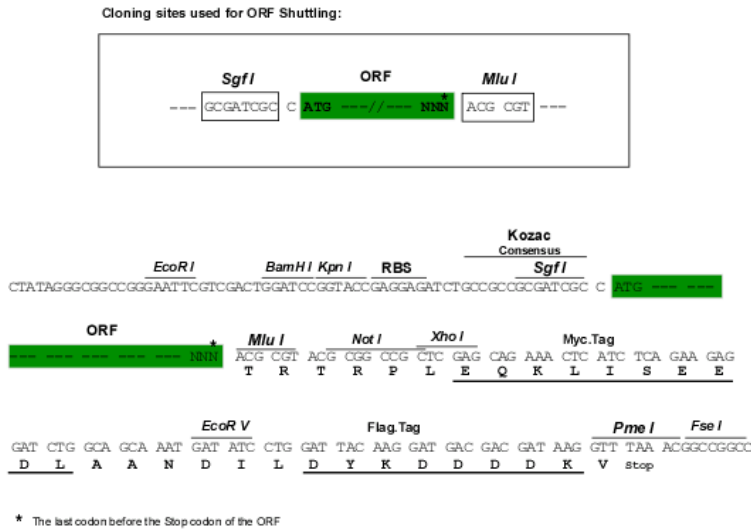
MSSYFVNSLFSKYKTGESLRPNYYDCGFAQDLGGRPTVVYGPSSGGSFQHPSQIQEFYHGPSSLSTAPYQ  
 QNPCAVACHGDPGNFYGYDPLQRQSLFGAQDPDLVQYADCKLAAASGLGEEAEGSEQSPSPTQLFPWMP  
 QAAGRRRGRQTYSTRYQTLLELEKEFLFNPLYTRKRRIEVSHALGLTERQVKIWFQNRMRMKWKENNKDKFP  
 SSKCEQEELKQKLERAPEAADEGDAQGDKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6099\\_e05.zip](https://cdn.origene.com/chromatograms/mk6099_e05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_024016

**ORF Size:** 726 bp

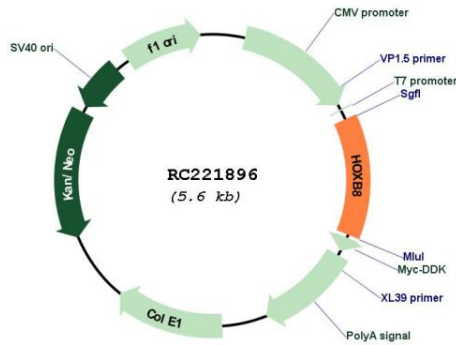
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of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

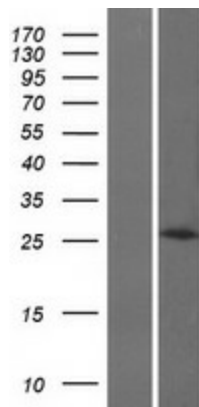
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

|                               |   |
|-------------------------------|---|
| <b>Components:</b>            | 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>RefSeq:</b>                | <a href="#">NM_024016.4</a>   |
| <b>RefSeq Size:</b>           | 1823 bp   |
| <b>RefSeq ORF:</b>            | 732 bp  |
| <b>Locus ID:</b>              | 3218  |
| <b>UniProt ID:</b>            | <a href="#">P17481</a>  |
| <b>Cytogenetics:</b>          | 17q21.32  |
| <b>Protein Families:</b>      | ES Cell Differentiation/IPS   |
| <b>MW:</b>                    | 27.4 kDa  |
| <b>Gene Summary:</b>          | This gene is a member of the Antp homeobox family and encodes a nuclear protein with a homeobox DNA-binding domain. It is included in a cluster of homeobox B genes located on chromosome 17. The encoded protein functions as a sequence-specific transcription factor that is involved in development. Increased expression of this gene is associated with colorectal cancer. Mice that have had the murine ortholog of this gene knocked out exhibit an excessive pathologic grooming behavior. This behavior is similar to the behavior of humans suffering from the obsessive-compulsive spectrum disorder trichotillomania. [provided by RefSeq, Jul 2008] |

Product images:



Circular map for RC221896



Western blot validation of overexpression lysate (Cat# [LY411393]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221896 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).