

Product datasheet for RC214217

HOXB1 (NM_002144) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HOXB1 (NM_002144) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HOXB1
Synonyms:	HCFP3; Hox-2.9; HOX2; HOX2I
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214217 representing NM_002144 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACTATAATAGGATGAACTCCTTCTTAGAGTACCCACTCTGTAACCGGGGACCCAGCGCCTACAGCG
CCCACAGCGCCCCAACCTCCTTTCCCCAAGCTCGGCTCAGGCGGTTGACAGCTATGCAAGCGAGGGCCG
CTACGGTGGGGGCTGTCCAGCCCTGCGTTTCAGCAGAACTCCGGCTATCCCGCCAGCAGCCGCTTCG
ACCCTGGGGGTGCCCTTCCCCAGCTCCGCGCCCTCGGGGTATGCTCCTGCCGCTGCAGCCCCAGCTACG
GGCCTTCTCAGTACTACCCTCTGGGTCAATCAGAAGGAGACGGAGGCTATTTTCATCCCTCGAGCTACGG
GGCCAGCTAGGGGGCTTGTCCGATGGCTACGGAGCAGGTGGAGCCGGTCCGGGGCCATATCCTCCGCAG
CATCCCCCTTATGGGAACGAGCAGACCGCGAGCTTGCACCGGCCTATGCTGATCTCCTCTCCGAGGACA
AGGAAACACCCTGCCCTTCAGAACCTAACACCCCCACGGCCCGGACCTTCGACTGGATGAAGGTTAAGAG
AAACCCACCCAAGACAGCGAAGGTGTCAGAGCCAGGCCTGGGCTCGCCAGTGGCTCCGCACCAACTTC
ACCACAAGGCAGCTGACAGAACTGGAAAAGGAGTTCCATTTCAACAAGTACCTGAGCCGGGCCCGGAGGG
TGGAGATTGCCGCCACCCTGGAGCTCAATGAAACACAGGTCAAGATTTGGTTCCAGAACCAGCAATGAA
GCAGAAGAAGCGCAGCGAGAGGAAGGTCGGGTCCCCCAGCCCCACAGGCTGCCCCAAGGAGGCAGCT
GGAGATGCCTCAGACCAGTCGACATGCACCTCCCCGGAAGCCTCAGCCAGCTCTGTACCTCC

ACGCGTACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC214217 representing NM_002144
 Red=Cloning site Green=Tags(s)

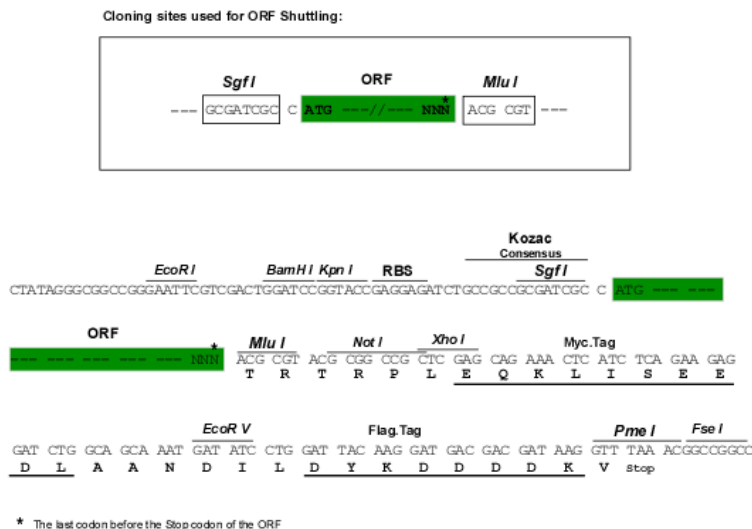
MDYNRMNSFLEYPLCNRGPSAYSASHSAPTSFPPSSAQAVDSYASEGRYGGGLSSPAFQQNSGYPAQQPPS
 TLGVFPSSAPSGYAPACSPSYGPSQYYPLGQSEGGYFHPSSYGAQLGGLSDGYGAGGAGPGPYPPQ
 HPPYGNEQTASFAPAYADLLSEDKETPCPSEPNTPTARTFDWMKVKNPPKTAKVSEPLGSPSGLRTNF
 TTRQLTELEKEFHFNKYLSRARRVEIAATLELNETQVKIWFQNRMRKQKKREREGRVPPAPPGPCKEAA
 GDASDQSTCTSPASPSSVTS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8029_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002144

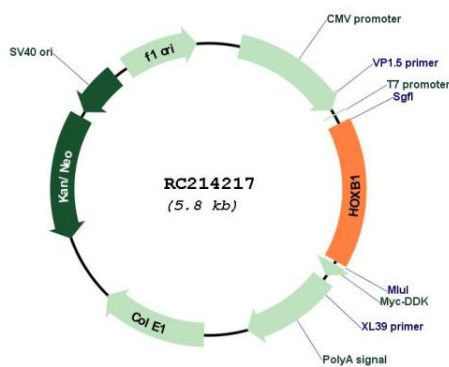
ORF Size: 903 bp

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.

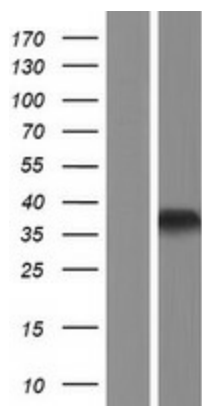
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002144.4
RefSeq Size:	1014 bp
RefSeq ORF:	906 bp
Locus ID:	3211
UniProt ID:	P14653
Cytogenetics:	17q21.32
Protein Families:	Transcription Factors
MW:	32 kDa
Gene Summary:	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 HOXB genes located in a cluster on chromosome 17. [provided by RefSeq, Jul 2008]

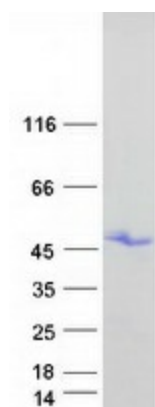
Product images:



Circular map for RC214217



Western blot validation of overexpression lysate (Cat# [LY419506]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214217 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HOXB1 protein (Cat# [TP314217]). The protein was produced from HEK293T cells transfected with HOXB1 cDNA clone (Cat# RC214217) using MegaTran 2.0 (Cat# [TT210002]).