

Product datasheet for **RG218740**

HOXB5 (NM_002147) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HOXB5 (NM_002147) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HOXB5
Synonyms:	HHO.C10; HOX2; Hox2.1; HOX2A; HU-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG218740 representing NM_002147 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCTCGTACTTTGTAAACTCCTTCTCGGGCGTTATCCAAATGGCCCGGACTATCAGTTGCTAAATT
ATGGCAGTGCCAGCTCTCTGAGCGGCTTTACAGGGATCCCGCTGCCATGCACACCGGCTTTACGGCTA
CAATTACAATGGGATGGACCTCAGCGTCAACCGCTCTCGGCCTCCTCCAGCCACTTTGGGGCGGTGGGC
GAGAGCTCGCGCCCTTCCCCGCGCCCGCCAGGAGCCCGCTTCAGGCAAGCGGCTTCGAGCTGCTCCC
TGTCTCGCCGAGTCCCTGCCCTGCACCAACGGCGCAGCCACGGCGCCAAGCCCTCTGCTTCGTCGCC
CTCCGACCAGGGACCTCAGCCAGCTCCAGCGCAATTTACCGAAATAGACGAGGCCAGCGCGTCTCG
GAGCCTGAGGAAGCGGCAAGCCAGCTAAGCAGCCCGCAGCTAGCTCGGGCGCAGCCAGAGCCCATGGCCA
CCTCCACAGCCGCGCCGAGGGGAGACTCCGAGATATCCCCTGGATGAGGAAGCTTCACATCAGCCA
TGATATGACCGGGCCGGACGGGAAAAGGGCCCGGACCGGTATACCCGCTACCAGACCCTGGAGCTGGAA
AAGGAGTTCCACTTCAACCGCTACCTGACCCGGCAGGGCGCATCGAGATCGCCACGCACTCTGCCTGT
CCGAGCGCCAGATCAAGATCTGGTTCCAGAACCGGCATGAAGTGAAGAAGGACAACAAATTGAAAAG
TATGAGCCTGGCTACAGCTGGCAGCGCCTTCCAGCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG218740 representing NM_002147
 Red=Cloning site Green=Tags(s)

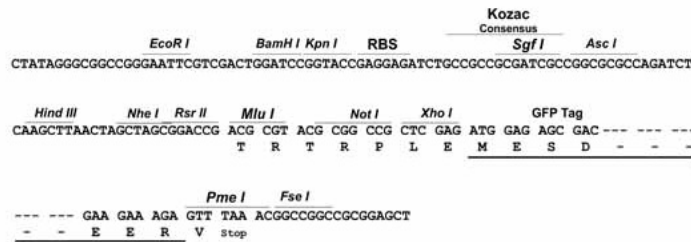
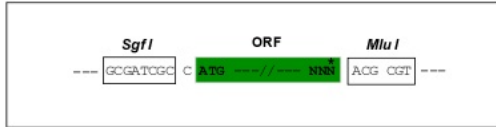
MSSYFVNSFSGRYPNGPDYQLLNYSGSSLSGSYRDPAMHTGSYGYNYNGMDLSVNRSSASSSHFGAVG
 ESSRAFPAQAQEPFRFQAASSCSLSSPELPTNGDSHGAKPSASSPSDQATSASSANFTEIDEASASS
 EPEEAASQLSSPSLARAQPEPMATSTAAPEGQTPQIFPWMRKLHISHDMTGPDGKRARTAYTRYQTLELE
 KEFHFNRYLTRRRRIEIAHALCLSERQIKIWFQNRMRKWKKDNKLSMSLATAGSAFQP

TRTRPLE - GFP Tag - V

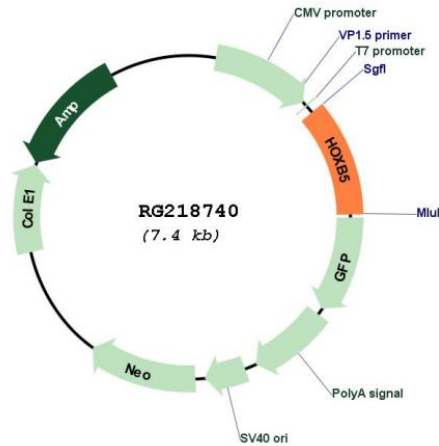
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_002147

ORF Size: 807 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:

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_002147.2](#), [NP_002138.1](#)

RefSeq Size: 1835 bp

RefSeq ORF: 810 bp

Locus ID: 3215

UniProt ID: [P09067](#)

Cytogenetics: 17q21.32

Domains: homeobox

Protein Families: Transcription Factors

Gene Summary: 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 lung and gut development. Increased expression of this gene is associated with a distinct biologic subset of acute myeloid leukemia (AML) and the occurrence of bronchopulmonary sequestration (BPS) and congenital cystic adenomatoid malformation (CCAM) tissue. [provided by RefSeq, Jul 2008]