

Product datasheet for RC224317

HOXA2 (NM_006735) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HOXA2 (NM_006735) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HOXA2
Synonyms:	HOX1K; MCOHI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224317 representing NM_006735 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATTACGAATTTGAGCGAGAGATTGGTTTTATCAATAGCCAGCCGTCGCTCGCTGAGTGCCTGACAT
CTTTCCCTGTGCTGATACATTTCAAAGTTCATCAATCAAGACCTCGACGCTTTCACACTCGACACT
GATTCCTCCTCTTTGAGCAGACCATTCCAGCCTGAACCCGGCAGTACCCTCGCCACGGCGTGGC
GGCCGCCCAAGCCGAGCCCGCGGGCAGCCGCGGAGCCGGTCCCGCCGGCGCCCTGCAGCCGCCCG
AGTACCCTGGATGAAGGAGAAGAAGGGCGCCAAGAAAACCGCACTTCTGCCGGCCGCCCGCCCGCGC
CACCGCCGAGCCACCGCCCTGCTTGCCCTCAGCCACAAAGAATCCCTGGAATCGCCGATGGCAGCGGC
GGGGATCGCGCGCCTGAGAACTGCTTACACCAACACACAGCTTCTAGAGCTGGAAAAAGAAATTCATT
TCAACAAGTACCTTTCAGACCCCGAAGGGTGGAGATTGCAGCGCTGCTGGATTTGACTGAGAGACAAGT
GAAAGTGTGGTTTCAGAACCGGAGGATGAAGCACAAGAGGCGAGCCAGTGAAGGAAAACAAAACAGC
GAAGGGAAATGTAAGCCTTGAGGACTCCGAGAAAGTAGAGGAGGACGAGGAAGAGAAGACGCTTTTG
AGCAAGCCCTTAGCGTCTCTGGGGCCCTTCTGGAGAGGGAAGGCTACACTTTTCAGCAAAATGCCCTCTC
TCAGCAGCAGGCTCCCAATGGACACAATGGCGACTCCCAAAGTTTCCAGTCTCGCTTTAACAGCAAT
GAGAAAAATCTGAAACATTTTCAGCACCAGTCAACCACTGTTCCCAACTGCTTGTCAACAATGGGCCAGA
ACTGTGGAGCTGGCCTAAACAATGACAGTCTGAGGCCCTTGAAGTCCCTCTTTGCAGGACTTTAGCGT
TTTCTCCACAGATTCTGCTGCAAGCTTTCAGATGCAGTTTACCCAGTTTGCCAGGTTCCCTCGACAGT
CCCGTAGATATTTAGCTGACAGCTTAGACTTTTTTACAGACACACTCACCAATCGACTTGCAGCATC
TGAATTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC224317 representing NM_006735
Red=Cloning site Green=Tags(s)

MNYEFEREIGFINSQPSLAECLTSFPPVADTFQSSSIKTSTLSHSTLIPPPFEQTIPSLNPGSHPRHGAG
 GRPKPSPAGSRGSPVPAGALQPPEYPMKEKKAAKKTALLPAAAAATAAATGPACLSHKESLEIADGSG
 GGSRRRLRTAYTNTQLLELEKEFHFNKYLCRPRRVEIAALLDLTERQVKVWFQNRMRKHKRQTQCKENQNS
 EGKCKSLEDSEKVEEDEEEKTLFEQALSVSGALLEREGYTFQONALSQQQAPNGHNGDSQSFPVSPPLTSN
 EKNLKHFOHQSPVTPNCLSTMGQNCGAGLNNDSPEALEVPSLQDFSVFSTDSCLQLSDAVSPSLPGSLDS
 PVDISADSLDFFTDLTTLIDLQHLNY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6117_h10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_006735

ORF Size: 1128 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_006735.4](#)

RefSeq Size: 1791 bp

RefSeq ORF: 1131 bp

Locus ID: 3199

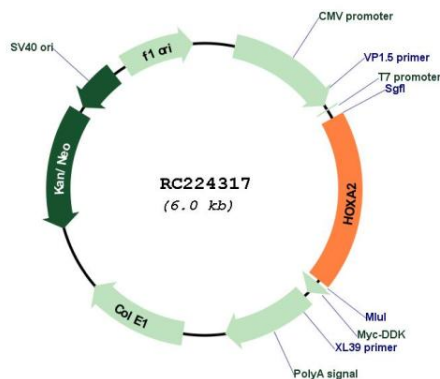
UniProt ID: [O43364](#)

Cytogenetics: 7p15.2

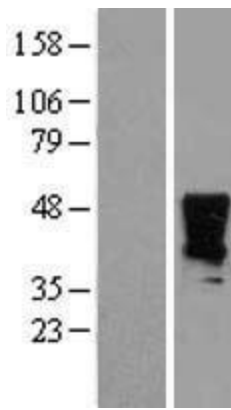
MW: 40.8 kDa

Gene Summary: In vertebrates, the genes encoding the class of transcription factors called homeobox genes are found in clusters named A, B, C, and D on four separate chromosomes. Expression of these proteins is spatially and temporally regulated during embryonic development. This gene is part of the A cluster on chromosome 7 and encodes a DNA-binding transcription factor which may regulate gene expression, morphogenesis, and differentiation. The encoded protein may be involved in the placement of hindbrain segments in the proper location along the anterior-posterior axis during development. [provided by RefSeq, Jul 2008]

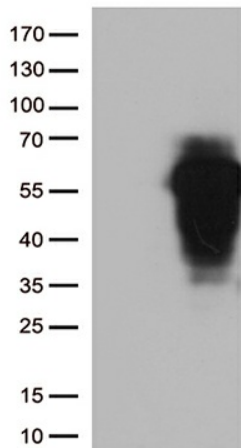
Product images:



Circular map for RC224317



Western blot validation of overexpression lysate (Cat# [LY402018]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224317 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HOXA2 (Cat# RC224317, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HOXA2 (Cat# [TA812722])(1:500). Positive lysates [LY402018] (100ug) and [LC402018] (20ug) can be purchased separately from OriGene.