

## Product datasheet for RC216886

### HMX2 (NM\_005519) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HMX2 (NM_005519) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HMX2
Synonyms:	H6L; Nkx5-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216886 representing NM_005519 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCAGCAAAGAAGATGCGGGCAAGGGGTGTCCGGCGGCCGGTGGCGTCTCCAGCTTCACCATCCAGT  
CCATCCTGGGCGGGGCCCTCGGAGGCACCGCGGAGCCCGTCCGGTGGCCAGCCAGGAAGCGCAGCCT  
GTCCGTGTCTCGGAGGAGGAGGAGCCGGACGACGGCTGGAAGGCGCCCGCTGCTTCTGCCAGACCAG  
CACGGCCCTAAGGAGCAGGGCCCAAGCACCATCCCCCATCCCTTTTCCTTGCCTGGGTACCCCAAGG  
GCAGCGGAGGCTCGGGCCGGGCGGCTTGAGCGCACGCCTTTCTCTCTCTTCCGACTCGGACTTTAA  
AGAAGAGAAAGAGAGGCTCCTGCCCGCGGGCTCGCCCTCGCCGGGTCCGAGCGGCCGGGACGGCGGC  
GCTGAGCGGCAGGCCGGCGGGCAAGAAGAAGACGCGCACCGTCTTTTCGCGCAGCCAGGTGTACCAGC  
TCGAGTCCACCTTCGACATGAAGCGCTACCTGAGCAGCTCGGAGCGCGCCTGCCTCGCCTCCAGCCTGCA  
GCTCACGGAGACCAGGTAAGACTTGGTTCCAGAACCGCCGAACAAGTGAAGCGGCAGCTCTCGGCT  
GAGCTGGAGGCGGCAACATGGCGCACGCGTCCGGCAGACTCTGGTGAAGCATGCCGCTGGTGTCCGGG  
ACAGTTCGCTGCTGCGCGTGCCGGTGCCGCGCTCGCTCGCCTTTCCCGCGCCGCTCTACTACCCGGGAAG  
CAACCTCTCGGCCTTACCTCTCTACAACCTATAACAACAAGCTCGACTAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC216886 representing NM\_005519  
 Red=Cloning site Green=Tags(s)

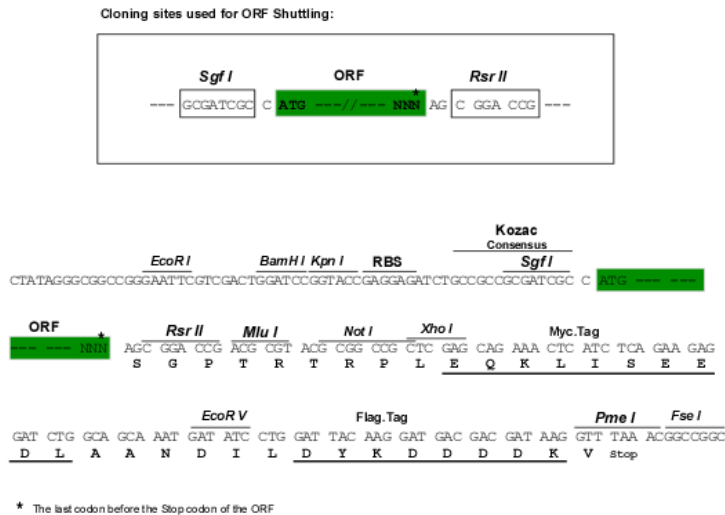
MGSKEDAGKGC PAAGGVSSFTIQSILGGGPSEAPREPVGWPARKRSLSVSSEEEPPDDGWKAPACFCPDQ  
 HGPKEQGPKHHPPIPFCLGTPKGS GSGPGLERTPFLLSPSHSDFKEEKERLLPAGSPSPGSRPRDGG  
 AERQAGAAKKKTRTVFSRSQVYQLESTFDMKRYLSSSERACLASSLQLTETQVKTWFQNRNKWKRLSA  
 ELEAANMAHASAQT LVSMPLVFRDSSLLRVPVPRSLAFPAPLYYPGSNLSALPLYNLYNKLDY

SGP TRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6188\\_c12.zip](https://cdn.origene.com/chromatograms/mk6188_c12.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**



**ACCN:** NM\_005519

**ORF Size:** 819 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\\_005519.1](#), [NP\\_005510.1](#)

**RefSeq Size:** 1628 bp

**RefSeq ORF:** 822 bp

**Locus ID:** 3167

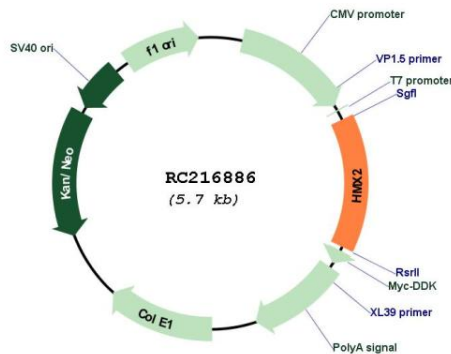
**UniProt ID:** [A2RU54](#)

**Cytogenetics:** 10q26.13

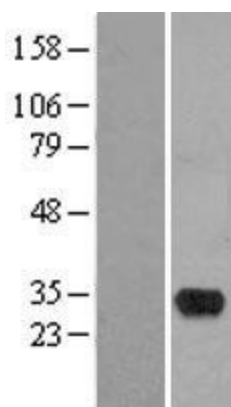
**MW:** 29.4 kDa

**Gene Summary:** The protein encoded by this gene is a member of the NKL homeobox family of transcription factors. Members in this family are of ancient origin and play an important role in organ development during embryogenesis. A related mouse protein plays a role in patterning of inner ear structures. In humans, variations in a region containing this gene have been associated with inner ear malformations, vestibular dysfunction, and hearing loss. [provided by RefSeq, Aug 2012]

**Product images:**



Circular map for RC216886



Western blot validation of overexpression lysate (Cat# [LY401694]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216886 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).