

## Product datasheet for **RC225531**

### HMx3 (NM\_001105574) Human Tagged ORF Clone

#### Product data:

|                           |                         |
|---------------------------|-------------------------|
| Product Type:             | Expression Plasmids     |
| Tag:                      | Myc-DDK                 |
| Symbol:                   | HMx3                    |
| Synonyms:                 | NKX-5.1; Nkx5-1; NKX5.1 |
| Mammalian Cell Selection: | Neomycin                |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)    |

**ORF Nucleotide Sequence:** >RC225531 representing NM\_001105574  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGCCGGAACCCGGGCCGGACGCTGCCGGCACCGCCAGCGCACAGCCCCAACCGCCGCCGCCCCCCCCAC  
CCGCTCCCAAGGAGTCCCCGTTCTCCATCAAGAACCTGCTCAACGGAGACCAACACCGGCCGCCCTTAA  
GCCTCAGCGCCCCACGGACGCTCTTCGCGCCAGCCTCGGCTGCCGCCGCCGCCGCGCTGCCGCTGCC  
GCGCGGCCAAGGGGGCCCTGGAGGGCGCCGCGGGCTTCGCGCTCTCGCAGGTGGCGACCTGGCTTTCC  
CTCGCTTTGAGATCCCGCGCAGAGGTTTGCCTGCCCCGCGCACTACCTGGAGCGCTCCCCAGCCTGGTG  
GTACCCCTACACCTGACCCCCCGCGGCCACCTCCCGCAGCTGAAGCCTCGGAGAAGGCCTTGCTG  
AGAGACTCTCCCCCGCTCCGGCACAGACCGCACTCTCCGAGCGCACTGCTCAAGGCCGACCCGATC  
ACAAGGAGCTGGACTCCAAGAGCCCGACGAGATCATTCTGGAGGAGAGCGACTCCGAGGAAAGCAAAA  
GGAAGGCGAAGCGCGCCAGGCGCGCCGGGGGAGCGTAGGGGCGCGCGGCCACTCCGGCGCAGAA  
GACTGGAAGAAGGGCGCTGAAAGTCCAGAGAAGAAGCGGCGTGCCGCAAGAAGAAGACGCGCACAGTCT  
TCTCGCGCAGCCAGGTCTTCAGCTCGAGTCCACCTTCGACATGAAGCGCTATCTGAGCAGCTCGGAGCG  
AGCCGGCTGGCCGCTCCCTGCACCTACCGAGACGAGTCAAGATCTGGTTCCAGAACC GCCCAAC  
AAGTGGAAGCGGACGCTGGCGGCGGAGCTGGAGGCGGCCAACCTGAGCCATGCCGCGGCGCAGCGCATCG  
TGCGGGTGCCATCTCTACACGAGAACTCGGCGGCCGAGGGCGCGGCGGCTGCAGCCGCGGGGGCCCC  
GGTGCCAGTCAGCCAGCCGCTGCTCACCTCCCGCACCCCGTCTACTACTCGCACCCGGTGGTCTCTTCC  
GTGCCGCTGCTACGGCCGGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence:

>RC225531 representing NM\_001105574

Red=Cloning site Green=Tags(s)

MPEPGDAAGTASAPQPPPPPPAPKESPF SIKNLLNGDHRPPPKPQPPPTL FAPASAAAAAAAAA  
AAAKGALEGAAGFALSQVGD LAFPRFEIPAQR FALPAHYLERSPAWYPYTLTPAGGHLPRPEASEKALL  
RDSSPASGTDRDSPELLKADPDHKELDSKSPDEIILEESDSESKKEGAAPGAAGASVGA AATPGAE  
DWKKGAESPEKKPACRKKKTRTVFSRSQVFQLESTFDMKRYLSSSERAGLAASLHLTETQVKIWFQNRN  
KWKRLAAELEAANL SHAAAQRIVRPILYHENSAAEGAAAAAGAPVPVSQPLLTFPHPVVYSHPVVSS  
VPLLRPV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

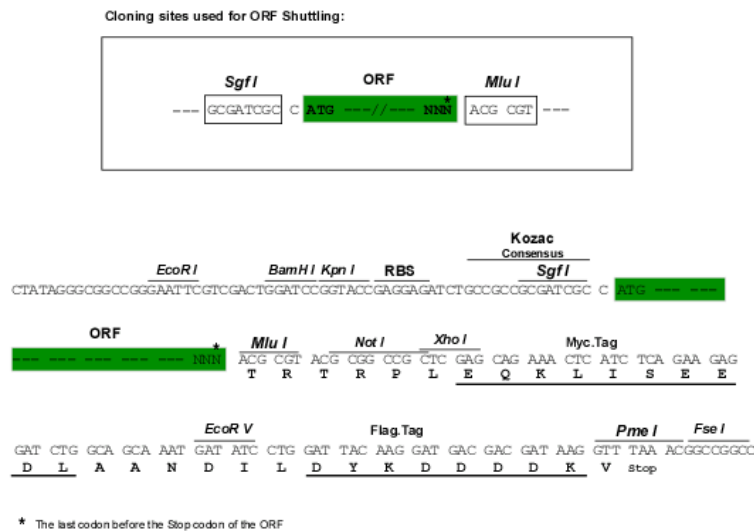
Chromatograms:

[https://cdn.origene.com/chromatograms/mk8034\\_h03.zip](https://cdn.origene.com/chromatograms/mk8034_h03.zip)

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN:

NM\_001105574

ORF Size:

1071 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:

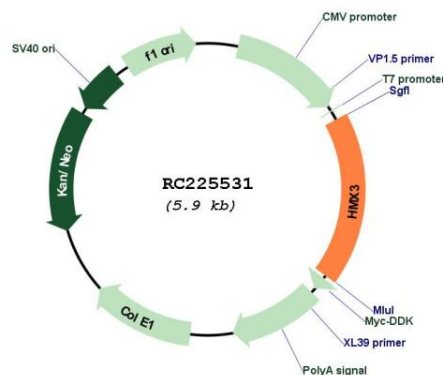
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:

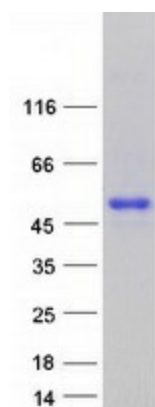
The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>RefSeq:</b>                | <u>NM_001105574.2</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq ORF:</b>            | 1074 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 340784                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>UniProt ID:</b>            | <u>A6NHT5</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 10q26.13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>MW:</b>                    | 37.6 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Gene Summary:</b>          | Transcription factor involved in specification of neuronal cell types and which is required for inner ear and hypothalamus development. Binds to the 5'-CAAGTG-3' core sequence. Controls semicircular canal formation in the inner ear. Also required for hypothalamic/pituitary axis of the CNS (By similarity).[UniProtKB/Swiss-Prot Function]                                                                                                                                                                       |

**Product images:**



Circular map for RC225531



Coomassie blue staining of purified HMX3 protein (Cat# [TP325531]). The protein was produced from HEK293T cells transfected with HMX3 cDNA clone (Cat# RC225531) using MegaTran 2.0 (Cat# [TT210002]).