

## Product datasheet for **MR225016**

### Rfx3 (NM\_001166414) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Rfx3 (NM_001166414) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Rfx3
Synonyms:	C230093O12Rik; MRFX3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR225016 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCAGACTTCAGAGACGGGTTACAGACAGGTTTCGACAGTACTCTGCAGACGTCTGTGGCTAGCCAAG  
CAGCAGTGCCTACACAGGTGGTACAGCAAGTGCCAGTGCAGCAGCAGGTGCAGCAGGTACAGACAGTTCA  
GCAGGTCCAACATGTCTACCCAGCTCAGGTGCAGTATGTGGAAGGAAGTATACTGTCTATACCAATGGA  
GCAATCCGAACAACAACCTATCCCTACACAGAAACACAGATGTACAGCCAAAACACTGGAGGAAATTACT  
TTGATACTCAAGGAAGTTCTGCCAGGTGACAACGTGGTGTCTCCACAGTATGGTGGTACTGGTGG  
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GCCAGATTCTCCTCTTAACCGTCTACAAGAAGATATGCAGTACATGGCTATGAGGCGAGCAGCCATGCAA  
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GGCTTCTGGGTGTGCCAGTGTGATGACAACATGGTTCAGAGACTAGAAACAGACTTCAAGATGACCCTG  
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GGTTATCCGGGACTTAACCTTGGCAGTGTGCTAGCTTTGGCTCCTTTACCTGATCCGGCTGCTCTAT  
GATGAGTACATGTTCTACTTAGTAGAGCATCGTGTGCTCAAGTGACAGGAGAGACACCGATAGCAGTGA  
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TACACAGCGAGCACATCGTCACAAGTACACAGACCATCAGGCAGTGCAGCGCCACAGGCAACACCTACAC  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
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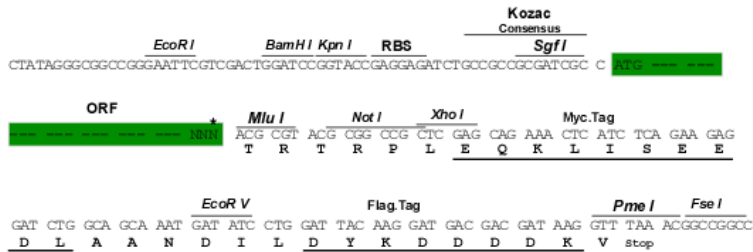
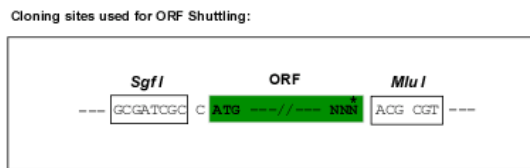
**Protein Sequence:** >MR225016 protein sequence  
Red=Cloning site Green=Tags(s)

```
MQTSETGSDTGSTVTLQTSVASQAAVPTQVVQQVPVQQVQQVQVTVQQVQHVYPAQVQYVEGSDTVYTNG
AIRTTTTPYTETQMYSQNTGGNYFDTQGSSAQVTTVVSSHSMVGTGGIQMGVTTGGQLISSGGTYLIGNS
MENSGHSVTHHTRASPATIEMAIETLQKSDGLSTHRSSLLNSHLQWLLDNYETAEGVSLPRSTLYNHLYR
HCQEHLKLDPVNAASFGLIRSI FMGLRTRRLGTRGNSKYHYYGIRVKPDSPLNRLQEDMQYAMRQQPMQ
QKQRYKPMQKVDGVADGFTGSGQQTGTSVEQTVIAQSQHHQQFLDASRALPEFGEVEISSLPDGTTFEDI
KSLQSLYREHCEAILDVVNLQFSLIEKLWQTFWRYSPSTPADGTTITESSNLSEIESRLPKAKLITLCK
HESILKWCNCNDHGMQALVEILIPDVLRLPISALTAIRNFAKSLLEGWLSNAMNNIPQRMIQTKVAAVS
AFAQTLRRYTSLNHLAQAAAVLQNTSQINQMLSDLNRVDFANVQEASWVCQDDNMVQRLETDFKMTL
QQQSTLEQWAAWLDNVMQALKPYEGRPSFPKAAQQLKWSFYSSMVIRDLTLRSAASFSGFHLIRLLY
DEYMFYLVEHRVAQVTGETPIAVMGEFGDLNAVSPGNLDKDEGSEVESEDEDLDDSSSEPRAKREKTELS
QAFPVGCMPVLESVQPSLLNPLHSEHIVTSTQTIRQCSATGNTYTAV
```

TRTRPLEQKLI SEEDLANDILDYKDDDDKV

**Restriction Sites:**  
**Cloning Scheme:**

Sgfl-MluI



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001166414

**ORF Size:** 2250 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\\_001166414.2](#)

**RefSeq Size:** 9146 bp

**RefSeq ORF:** 2250 bp

**Locus ID:** 19726

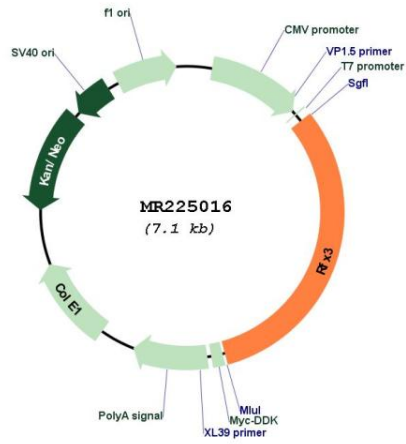
**UniProt ID:** [P48381](#)

**Cytogenetics:** 19 C1

**MW:** 83.5 kDa

**Gene Summary:** Transcription factor required for ciliogenesis and islet cell differentiation during endocrine pancreas development. Essential for the differentiation of nodal monocilia and left-right asymmetry specification during embryogenesis. Required for the biogenesis of motile cilia by governing growth and beating efficiency of motile cells (PubMed:15121860, PubMed:19671664). Also required for ciliated ependymal cell differentiation (PubMed:16930429). Together with RFX6, participates in the differentiation of 4 of the 5 islet cell types during endocrine pancreas development, with the exception of pancreatic PP (polypeptide-producing) cells (PubMed:17229940). Regulates transcription by forming a heterodimer with another RFX protein and binding to the X-box in the promoter of target genes (By similarity). Regulates the expression of genes involved in ciliary assembly (DYNC2LI1, FOXJ1 and BBS4) and genes involved in ciliary motility (DNAH11, DNAH9 and DNAH5). Represses transcription of MAP1A in non-neuronal cells but not in neuronal cells. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225016