

## Product datasheet for **MR230360**

### Irx3 (NM\_001253822) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Irx3 (NM_001253822) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Irx3
Synonyms:	A1894186
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR230360 representing NM\_001253822  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCCTTCCCCAGCTCGGATACCAGTACATCCGCCCTCTACCCACCCGAACGCCCGGGAGCTGCGG  
 GCGGCGGTGGAGCGGCAGTAGCGCTGGGGCCGGAGCGGTCCCAGCGCCGGAGCCTCCGAGTTGGCCGC  
 CTCTGGGTCCCTATCCAATGTGCTTTCATCAGTGTACGGGGCACCTACGCCGCTGCCGAGCTGCCGCC  
 GCCCGCTCAGGGTTACGGCGCCTTCTGCCCTACGCCACGGAGCTGCCCATCTTCCCACAGCTGGGCG  
 CTCAGTATGAGCTGAAGGACAGCCCTGGCGTCCAGCATCCGGCCACGGCCGCCGCTTCCCACCCCGCA  
 CCCCCTTCTACCCCTATGGCCAGTACCAGTTCGGGGACCCGTCCTCCCAAGAACGCCACCCGGGAA  
 AGCAGGACAGCTCAAGGCTGGCTCAACGAGCACCGCAAGAACCCTACCCACCAAGGGCGAGAAGA  
 TCATGTTGGCCATCATCACAAGATGACCTCACCCAGGTGTCCACCTGGTTCGCCAACGCGCGCCGGCG  
 CCTCAAGAAGGAGAACAAGATGACGTGGCTCCCGTAGTCGCACGGACGAGGAGGCAATGCTTATGGG  
 AGCGAGCGGGAGGAGGAGGACGAAGAGGAAGACGAGGAAGAGAGCAAACGCGAGCTGGAGATGGAGGAGG  
 AGGAGCTCGCAGGAGAGGAGGAGGACACGGGGGCGAGGGGCTGGCCGACGACGACGAGGATGAGGAGAT  
 CGATTTGGAAAATTAGACAGCGCGCAGCCGGTTCGGAGCTGACCTGGCTGGGCGGCGCACAGGAAC  
 GCGACTTCGGCTGGGACCCATTTTCGGACTGCAAACTAGCGACTCGGACGACAGCTCCGAAGGCTTGG  
 AGGACCGACCACTGTCCGCTCCTGAGCCTGGCCCCACCGCCACCGCCGCTGGCCAGGGCTCCTGCATCTCC  
 ACCTTCTCACCCCTCCAGCCTGGATCCCTGCGCTCCGGCCCCGGCGCCCTCCTCCGCCCTCCAGAAGCCC  
 AAGATCTGGTCACTGGCCGAGACGGCCACCAGCCCGGACAACCCACGCCGCTCGCTCCCGAGCCGGAG  
 GTTCGCTCCCGCGCAGCCGTTGCGCCCCGACGCTGCAGCTCTCGCCCGCGGCGCTGCAGCGGCTGC  
 AGCGGCACACAGACTCGTGTCCGGCGCGCTTGGCAAATTCGCCGCTTGGACCAACAGGCCTTCCAGGG  
 CCGCCGGCCGGTCCGCGGCCGACCCGCTGTCCATGCTGGGCTCGGCCCCACAGCACCTGCTGGGACTTC  
 CCGGAGCCGAGGTCATCCCGCTGCGGCCGACCCGCTATGCTCGGCTGCCGAGCCGAGAGTGGAAAC  
 AGGTGACAAGAAAAATATCGCTGTAGTGCCTTGGAAAGTGAGAAAAAGTTACTCAAGACAGCTTCCAGC  
 CGGTGCCAAGGCGCCACAGAACCATCTGGACGCTGCTCTGGTCTATCAGCTCTCTCCTCGTCTTAACT  
 TTCAACCATTTTAAATCGTTGTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR230360 representing NM\_001253822  
 Red=Cloning site Green=Tags(s)

MSFPQLGYQYIRPLYPPERPGAAGGGGGSSAGGRSGPGAGASELAASGSLSNVLSVYQYAPYAAAAAA  
 AAAQYGAFLPYATELPIFPQLGAQYELKDSQVQHPATAAAFPHPHAFYQYQFGDPSRPKNATRE  
 STSTLKAWLNEHRKNPYPTKGEKIMLAIIITKMTLTQVSTWFANARRRLKKNKMTWAPRSRTDEEGNAYG  
 SEREEDEEEDEEESKRELEMEEEELAGEEEDTGGEGLEADDEDEEIDLENLDSAAAGSELTLGAAHRN  
 GDFGLGPISDCKTSDSDSSEGLEDRPLSVLSLAPPPPPVARAPASPPSPSSLDPCAPAPAPSSALQKP  
 KIWSLAETATSPDNRRSPPGAGGSPGAAPPTLQLSPAAAAAAAHRLVSAPLGKFPWTNRPFPG  
 PPAGPRPHPLSMLGSAPQHLLGLPGAAGHPAAAAAAYARPAEPESGTGDKKNIIVVPWKWRKYSYRQLSS  
 RCQGGHRTIWTLLWSYQLSPRLNFSTIFKSLY

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001253822

**ORF Size:** 1566 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](mailto: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.

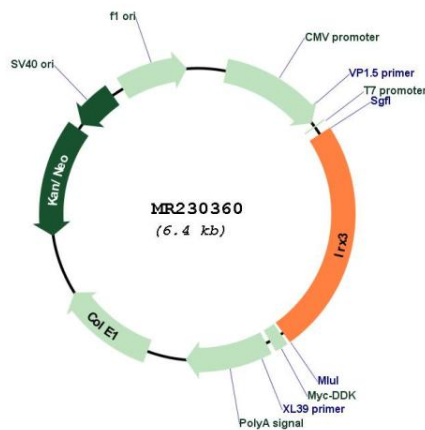
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_001253822.1](#), [NP\\_001240751.1](#)  
**RefSeq Size:** 2363 bp  
**RefSeq ORF:** 1569 bp  
**Locus ID:** 16373  
**UniProt ID:** [P81067](#)  
**Cytogenetics:** 8 44.55 cM  
**MW:** 55.3 kDa

**Gene Summary:** Transcription factor involved in SHH-dependent neural patterning (PubMed:10830170, PubMed:15201216). Together with NKX2-2 and NKX6-1 acts to restrict the generation of motor neurons to the appropriate region of the neural tube (PubMed:10830170, PubMed:15201216). Belongs to the class I proteins of neuronal progenitor factors, which are repressed by SHH signals (PubMed:10830170, PubMed:15201216). Involved in the transcriptional repression of MNX1 in non-motor neuron cells (PubMed:15201216). Acts as a regulator of energy metabolism (PubMed:24646999).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR230360