**OriGene Technologies, Inc.**
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

# Product datasheet for RC224767

## Neurogenin3 (NEUROG3) (NM_020999) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Neurogenin3 (NEUROG3) (NM_020999) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | Neurogenin3 |
| **Synonyms:** | Atoh5; bHLHa7; Math4B; NGN-3; ngn3 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC224767 representing NM_020999
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACGCCTCAACCCTCGGGTGCGCCCACTGTCCAAGTGACCCGTGAGACGGAGCGGTCCTTCCCCAGAG
CCTCGGAAGACGAAGTGACCTGCCCCACGTCCGCCCCGCCCAGCCCCACTCGCACACGGGGGAACTGCGC
AGAGGCGGAAGAGGGAGGCTGCCGAGGGGCCCCGAGGAAGCTCCGGGCACGGCGCGGGGGACGCAGCCGG
CCTAAGAGCGAGTTGGCACTGAGCAAGCAGCGACGGAGTCGGCGAAAGAAGGCCAACGACCGCGAGCGCA
ATCGAATGCACAACCTCAACTCGGCACTGGACGCCCTGCGCGGTGTCCTGCCCACCTTCCCAGACGACGC
GAAGCTCACCAAGATCGAGACGCTGCGCTTCGCCCACAACTACATCTGGGCGCTGACTCAAACGCTGCGC
ATAGCGGACCACAGCTTGTACGCGCTGGAGCCGCCGGCGCCGCACTGCGGGGAGCTGGGCAGCCCAGGCG
GTTCCCCCGGGGACTGGGGGTCCCTCTACTCCCCAGTCTCCCAGGCTGGCAGCCTGAGTCCCGCCGCGTC
GCTGGAGGAGCGACCCGGGCTGCTGGGGGCCACCTCTTCCGCCTGCTTGAGCCCAGGCAGTCTGGCTTTC
TCAGATTTTCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:**

>RC224767 representing NM_020999
Red=Cloning site Green=Tags(s)

MTPQPSGAPTVQVTRETERSFPRASEDEVTCPTSAPPSPTRTRGNCAEAEEGGCRGAPRKLRARRGGRSR
PKSELALSKQRRSRRKKANDRERNRMHNLNSALDALRGVLPTFPDDAKLTKIETLRFAHNYIWALTQTLR
IADHSLYALEPPAPHCGELGSPGGSPGDWGSLYSPVSQAGSLSPAASLEERPGLLGATSSACLSPGSLAF
SDFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

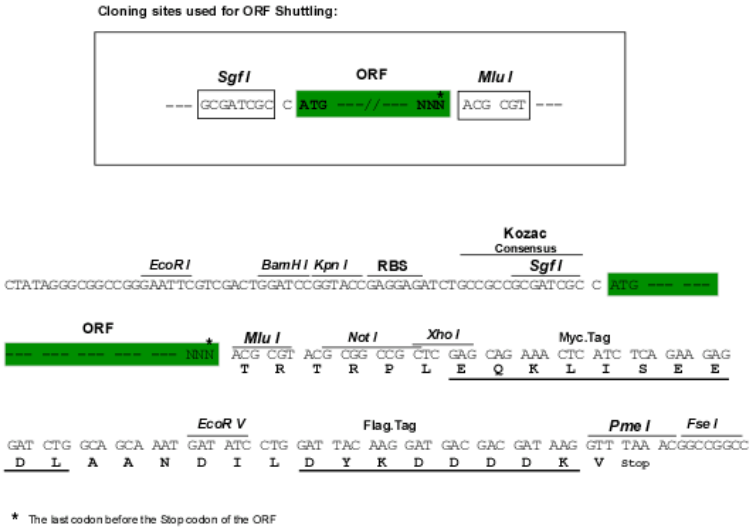
**Chromatograms:**

https://cdn.origene.com/chromatograms/mk6112_h04.zip

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**




**ACCN:**

NM_020999

**ORF Size:**

642 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 or by calling 301.340.3188 option 3 for pricing and delivery.

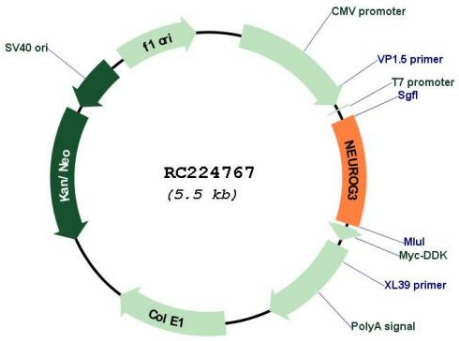
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

**OTI Annotation:**

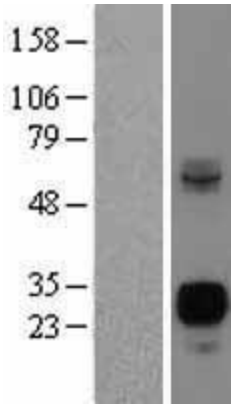
This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

| | |
|---|---|
| **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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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. |
| **Note:** | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required. |
| **RefSeq:** | NM_020999.4 |
| **RefSeq Size:** | 1167 bp |
| **RefSeq ORF:** | 645 bp |
| **Locus ID:** | 50674 |
| **UniProt ID:** | Q9Y4Z2 |
| **Cytogenetics:** | 10q22.1 |
| **Protein Families:** | ES Cell Differentiation/IPS |
| **Protein Pathways:** | Maturity onset diabetes of the young |
| **MW:** | 22.9 kDa |
| **Gene Summary:** | The protein encoded by this gene is a basic helix-loop-helix (bHLH) transcription factor involved in neurogenesis. The encoded protein likely acts as a heterodimer with another bHLH protein. Defects in this gene are a cause of congenital malabsorptive diarrhea 4 (DIAR4).[provided by RefSeq, May 2010] |

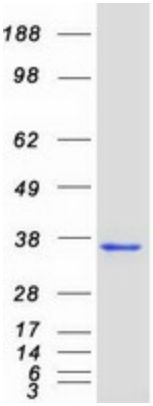
## Product images:




Circular map for RC224767




Western blot validation of overexpression lysate (Cat# [LY402827]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224767 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified NEUROG3 protein (Cat# [TP324767]). The protein was produced from HEK293T cells transfected with NEUROG3 cDNA clone (Cat# RC224767) using MegaTran 2.0 (Cat# [TT210002]).