

## Product datasheet for **RC401976**

### NF2 (NM\_000268) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	NF2 (NM_000268) Human Mutant ORF Clone
Mutation Description:	Q453X
Affected Codon#:	453
Affected NT#:	1357
Nucleotide Mutation:	NF2 Mutant (Q453X), Myc-DDK-tagged ORF clone of Homo sapiens neurofibromin 2 (merlin) (NF2), transcript variant 1 as transfection-ready DNA
Effect:	Neurofibromosis 2
Symbol:	NF2
Synonyms:	ACN; BANF; merlin-1; SCH
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_000268
ORF Size:	1356 bp
Restriction Sites:	Sgfl-MluI



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**ORF Nucleotide  
Sequence:**

>RC401976 representing NM\_000268  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGGGGCCATCGCTTCCCGCATGAGCTTCAGCTCTCTCAAGAGGAAGCAACCCAAGACGTTACCG  
 TGAGGATCGTACCATGGACGCCGAGATGGAGTTCAATTGCGAGATGAAGTGAAAGGGAAGGACCTCTT  
 TGATTTGGTGTGCCGACTCTGGGGCTCCGAGAAACCTGGTTCTTTGGACTGCAGTACACAATCAAGGAC  
 ACAGTGGCCTGGCTCAAATGGACAAGAAGGTAAGTGGATCATGATGTTTCAAAGGAAGAACCAGTCACCT  
 TTCCTTCTTGGCCAAATTTTATCCTGAGAATGCTGAAGAGGAGCTGGTTCAGGAGATCACACAACATTT  
 ATTCTTCTTACAGGTAAGAAGCAGATTTTAGATGAAAAGATCTACTGCCCTCCTGAGGCTTCTGTGCTC  
 CTGGCTTCTTACGCCGTCCAGGCCAAGTATGGTACTACGACCCAGTGTTCACAAGCGGGGATTTTGG  
 CCCAAGAGGAATTGCTTCCAAAAAGGTAATAAATCTGTATCAGATGACTCCGGAATGTGGGAGGAGAG  
 AATTACTGCTTGGTACGCAGAGCACCGAGGCCGAGCCAGGGATGAAGCTGAAATGGAATATCTGAAGATA  
 GCTCAGGACCTGGAGATGTACGGTGTGAATACTTTGCAATCCGGAATAAAAAGGGCACAGAGCTGCTGC  
 TTGGAGTGGATGCCCTGGGGCTTACATTTATGACCCTGAGAACAGACTGACCCCAAGATCTCCTTCCC  
 GTGGAATGAAATCCGAAACATCTCGTACAGTGACAAGGAGTTTACTATTAACCACTGGATAAGAAAATT  
 GATGTCTTCAAGTTTAACTCCTCAAAGCTTCGTGTTAATAAGCTGATTCTCCAGCTATGTATCGGGAACC  
 ATGATCTATTTATGAGGAGAAGGAAAGCCGATTCTTTGGAAGTTCAGCAGATGAAAGCCAGGCCAGGGA  
 GGAGAAGGCTAGAAAGCAGATGGAGCGGCAGCGCTCGCTCGAGAGAAGCAGATGAGGGAGGAGGCTGAA  
 CGCAGCAGGGATGAGTTGGAGAGGAGGCTGCTGCAGATGAAAGAAGAAGCAACAATGGCCAACGAAGCAC  
 TGATGCGGTCTGAGGAGACAGCTGACCTGTTGGCTGAAAAGGCCAGATCACCGAGGAGGAGGCAAACT  
 TCTGGCCAGAAAGGCCGAGAGGCTGAGCAGGAAATGCAGCGCATCAAGGCCACAGCGATTTCGACGAGAG  
 GAGGAGAAGCGCTGATGGAGCAGAAGGTGCTGGAAGCCGAGGTGCTGGCACTGAAGATGGCTGAGGAGT  
 CAGAGAGGAGGCCAAAGAGGCAGAT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGTTTAA

**Protein Sequence:**

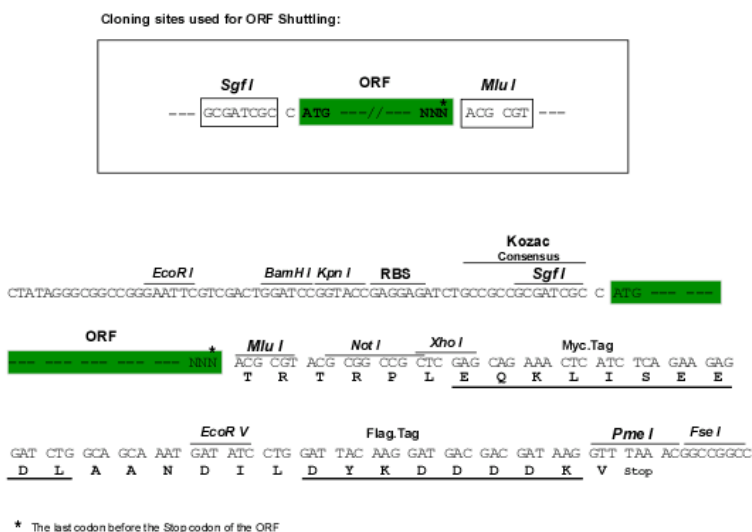
>RC401976 representing NM\_000268  
 Red=Cloning site Green=Tags(s)

MAGAIASRMSFSSLKRKQPKFTFVRIVTMDAEMFNCEMKWKGLFDLVCRTLGLRETWFFGLQYTIKD  
 TVAWLKMDKKVLDHDSKEEPVTFHFLAKFYPENAEELVQEITQHLFFLVKKQILDEKIYCPPEASVL  
 LASYAVQAKYGDYDPSVHKRGFLAQEELLPKRVINLYQMTPEMWEERITAWYAEHRGRARDEAEMEYLKI  
 AQDLEMYGVNYFAIRNKKGTTELLGVDALGLHIYDPENRLTPKISFPWNEIRNISYSDEFTIKPLDKKI  
 DVFKFNSSKLRVNLILQLCIGNHDLFMRRRKADSLEVQOMKAQAREEKARKQMERQRLAREKQMREEAE  
 RTRDELERRLLQMKEEATMANEALMRSEETADLLAEKAQITEEEAKLLAQKAAEAQEMQRIKATAIRTE  
 EEKRLMEQKVLEAEVLALKMAEESERRAKEAD

**SGP**TRTRRLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**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).

**RefSeq:**

[NP\\_000259](#)

**RefSeq Size:**

1356 bp

**RefSeq ORF:**

1788 bp

**Locus ID:**

4771

**Cytogenetics:**

22q12.2

**Domains:**

B41, ERM

**Protein Families:**

Druggable Genome

**MW:**

49.7 kDa

**Gene Summary:**

This gene encodes a protein that is similar to some members of the ERM (ezrin, radixin, moesin) family of proteins that are thought to link cytoskeletal components with proteins in the cell membrane. This gene product has been shown to interact with cell-surface proteins, proteins involved in cytoskeletal dynamics and proteins involved in regulating ion transport. This gene is expressed at high levels during embryonic development; in adults, significant expression is found in Schwann cells, meningeal cells, lens and nerve. Mutations in this gene are associated with neurofibromatosis type II which is characterized by nervous system and skin tumors and ocular abnormalities. Two predominant isoforms and a number of minor isoforms are produced by alternatively spliced transcripts. [provided by RefSeq, Jul 2008]