

## Product datasheet for **RC401983**

### **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:	Y481X
Affected Codon#:	481
Affected NT#:	1443
Nucleotide Mutation:	NF2 Mutant (Y481X), 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:	1440 bp
Restriction Sites:	Sgfi-Mlul



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**ORF Nucleotide Sequence:**

>RC401983 representing NM\_000268  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGGGGCCATCGCTTCCCGCATGAGCTTTCAGCTCTCTCAAGAGGAAGCAACCCAAGACGTTACCCG  
 TGAGGATCGTACCATGGACGCCGAGATGGAGTTCAATTGCGAGATGAAGTGAAAGGGAAGGACCTCTT  
 TGATTTGGTGTGCCGACTCTGGGGCTCCGAGAAACCTGGTTCTTTGGACTGCAGTACACAATCAAGGAC  
 ACAGTGGCCTGGCTCAAATGGACAAGAAGGACTGGATCATGATGTTTCAAAGGAAGAACCAGTCACCT  
 TTCACTTCTGGCCAAATTTTATCCTGAGAATGCTGAAGAGGAGCTGGTTCAGGAGATCACACAACATTT  
 ATTCTTCTACAGGTAAGAAGCAGATTTAGATGAAAAGATCTACTGCCCTCCTGAGGCTTCTGTGCTC  
 CTGGCTTCTACGCCGTCAGGCCAAGTATGGTACTACGACCCAGTGTTCACAAGCGGGGATTTTGG  
 CCCAAGAGGAATTGCTTCCAAAAGGGTAATAAATCTGTATCAGATGACTCCGGAATGTGGGAGGAGAG  
 AATTACTGCTTGGTACGCAGAGCACCGAGGCCAGGGATGAAGCTGAAATGGAATATCTGAAGATA  
 GCTCAGGACCTGGAGATGTACGGTGTGAACTACTTTGCAATCCGGAATAAAAAGGACACAGAGCTGCTGC  
 TTGGAGTGGATGCCCTGGGGCTTACATTTATGACCCTGAGAACAGACTGACCCCAAGATCTCCTTCCC  
 GTGGAATGAAATCCGAAACATCTCGTACAGTGACAAGGAGTTTACTATTAACCCTGGATAAGAAAATT  
 GATGTCTTCAAGTTTAACTCCTCAAAGCTTCGTGTTAATAAGCTGATTCTCCAGCTATGTATCGGGAACC  
 ATGATCTATTTATGAGGAGAAGGAAAGCCGATTCTTTGGAAGTTCAGCAGATGAAAGCCAGGCCAGGGA  
 GGAGAAGGCTAGAAAGCAGATGGAGCGGCAGCGCTCGCTCGAGAGAAGCAGATGAGGGAGGAGGCTGAA  
 CGCAGGAGGATGAGTTGGAGAGGAGGCTGCTGCAGATGAAAGAAGAAGCAACAATGGCCAACGAAGCAC  
 TGATGCGGTCTGAGGAGACAGCTGACCTGTTGGCTGAAAAGGCCAGATCACCGAGGAGGAGGCAAAAAT  
 TCTGGCCAGAAAGGCCGAGAGGCTGAGCAGGAAATGCAGCGCATCAAGGCCACAGCGATTTCGCACGGAG  
 GAGGAGAAGCGCCTGATGGAGCAGAAGGTGCTGGAAGCCGAGGTGCTGGCACTGAAGATGGCTGAGGAGT  
 CAGAGAGGAGGCCAAAGAGGCAGATCAGCTGAAGCAGGACCTGCAGGAAGCACGCGAGGCGGAGCGAAG  
 AGCCAAGCAGAAGCTCCTGGAGATTGCCACCAAGCCACG

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC401983 representing NM\_000268  
 Red=Cloning site Green=Tags(s)

MAGAIASRMSFSSLKRKQPKFTVRIVTMDAEMEFNCEMKWKGDLDLVCRTLGLRETWFFGLQYTIKD  
 TVAWLKMDKKVLDHDVSKEEPVTFHFLAKFYPENAEELVQEITQHLFFLQVKKQILDEKIYCPPEASVL  
 LASYAVQAKYGDYDPSVHKRGFLAQEELLPKRVINLYQMTPEMWEERITAWYAEHRGRARDEAEMEYLKI  
 AQDLEMYGVNYFAIRNKKGTELLGLVDALGLHIYDPENRLTPKISFPWNEIRNISYDKEFTIKPLDKKI  
 DVFKFNSSKLRVNLILQLCIGNHDLFMRRRKADSLEVQMKQAAREEKARKQMERQRLAREKQMREEAE  
 RTRDELERRLLQMKEEATMANEALMRSEETADLLAEKAQITEEAKLLAQKAAEAQEMQRKATAIRTE  
 EEKRLMEQKVLAEVLAALKMAEESERRAKEADQLKQDLQEAAREARRAKQLLEIATKPT

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

**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:**

1440 bp

**RefSeq ORF:**

1788 bp

**Locus ID:**

4771

**Cytogenetics:**

22q12.2

**Domains:**

B41, ERM

**Protein Families:**

Druggable Genome

**MW:**

52.8 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]