

Product datasheet for **RC401972**

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:	K413E
Affected Codon#:	413
Affected NT#:	1237
Nucleotide Mutation:	NF2 Mutant (K413E), 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:	1785 bp
Restriction Sites:	Sgfi-Mlul



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ORF Nucleotide Sequence:

>RC401972 representing NM_000268
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGGGGCCATCGCTTCCCGCATGAGCTTCACTCTCTCAAGAGGAAGCAACCCAAGACGTTACCCG
 TGAGGATCGTCACCATGGACGCCGAGATGGAGTTCAATTGCGAGATGAAGTGGAAAGGGAAGGACCTCTT
 TGATTTGGTGTGCCGACTCTGGGGCTCCGAGAAACCTGGTTCTTTGGACTGCAGTACACAATCAAGGAC
 ACAGTGGCCTGGCTCAAATGGACAAGAAGGACTGGATCATGATGTTTCAAAGGAAGAACCAGTCACCT
 TTCACTTCTGGCCAAATTTTATCCTGAGAATGCTGAAGAGGAGCTGGTTCAGGAGATCACACAACATTT
 ATTCTTCTACAGGTAAGAAGCAGATTTAGATGAAAAGATCTACTGCCCTCTGAGGCTTCTGTGCTC
 CTGGCTTCTACGCCGTCAGGCCAAGTATGGTACTACGACCCAGTGTTCACAAGCGGGGATTTTGG
 CCCAAGAGGAATTGCTTCCAAAAGGGTAATAAATCTGTATCAGATGACTCCGGAATGTGGGAGGAGAG
 AATTACTGCTTGGTACGCAGAGCACCGAGGCCAGGGATGAAGCTGAAATGGAATATCTGAAGATA
 GCTCAGGACCTGGAGATGTACGGTGTGAACTACTTTGCAATCCGGAATAAAAAGGACACAGAGCTGCTGC
 TTGGAGTGGATGCCCTGGGGCTTACATTTATGACCTGAGAACAGACTGACCCCAAGATCTCCTTCCC
 GTGGAATGAAATCCGAAACATCTCGTACAGTGACAAGGAGTTTACTATTAACCCTGGATAAGAAAATT
 GATGTCTTCAAGTTTAACTCCTCAAAGCTTCGTGTTAATAAGCTGATTCTCCAGCTATGTATCGGGAACC
 ATGATCTATTTATGAGGAGAAGGAAAGCCGATTCTTTGGAAGTTCAGCAGATGAAAGCCCAGGCCAGGGA
 GGAGAAGGCTAGAAAGCAGATGGAGCGGCAGCGCTCGCTCGAGAGAAGCAGATGAGGGAGGAGGCTGAA
 CGCAGCGGGATGAGTTGGAGAGGAGGCTGCTGCAGATGAAAGAAGAAGCAACAATGGCCAACGAAGCAG
 TGATCGGCTCTGAGGAGACAGCTGACCTGTTGGCTGAAAAGGCCAGATCACCGAGGAGGAGGCAAAAAC
 TCTGGCCAGAAAGGCCGAGAGGCTGAGCAGGAAATGCAGCGCATCGAGGCCACAGCGATTTCGCACGGAG
 GAGGAGAAGCGCCTGATGGAGCAGAAGGTGCTGGAAGCCGAGGTGCTGGCACTGAAGATGGCTGAGGAGT
 CAGAGAGGAGGGCCAAAGAGGCAGATCAGCTGAAGCAGGACCTGCAGGAAGCACGCGAGGCGGAGCGAAG
 AGCCAAGCAGAAGCTCCTGGAGATTGCCACCAAGCCACGTACCCGCCATGAACCAATTCCAGCACCG
 TTGCCTCTGACATACCAAGCTTCAACCTCATTGGTGACAGCCTGTCTTTCGACTTCAAAGATACTGACA
 TGAAGCGGCTTCCATGGAGATAGAGAAAGAAAAGTGAATACATGGAAAAGAGCAAGCATCTGCAGGA
 GCAGCTCAATGAACTCAAGACAGAAATCGAGGCTTGAAGTGAAGAGAGGGAGACAGCTCTGGATATT
 CTGCACAATGAGAACTCCGACAGGGGTGGCAGCAGCAAGCACAATACCATTAAAAGCTCACCTGCAGA
 GCGCAAGTCCCGAGTGGCTTCTTTGAAGAGCTC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

>RC401972 representing NM_000268
 Red=Cloning site Green=Tags(s)

MAGAIASRMSFSSLKRKQPKFTFVRIVTMDAEMEFNCEMKWKGKDLFDLVCRTLGLRETWFFGLQYTIKD
 TVAWLKMDDKVLVDHVSKEEPVTFHFLAKFYPENAEELVQEITQHLFFLVQVKKQILDEKIYCPPEASVL
 LASYAVQAKYGDYDPSVHKRGLAQEELLPKRVINLYQMPPEMWEERITAWYAEHRGRARDEAEMEYLKI
 AQDLEMYGVNYFAIRNKKGTELLLVGDALGLHIYDPENRLTPKISFPWNEIRNISYSDKEFTIKPLDKKI
 DVFKFNSSKLRVNKLIQLCIGNHDLFMRRRKADSLEVVQMQAQAREEKARKQMERQRLAREKQMRREEAE
 RTRDELERRLLQMKEEATMANEALMRSEETADLLAEKAQITEEEAKLLAQKAAEAQEMQRIEATAIRTE
 EEKRLMEQKVLAEVLAKMAEESERRAKEADQLKQDLQEAAREARRAKQLLEIATKPTYPPMNPAP
 LPPDIPSFNLIGDSL SFDKDTDMKRLSMEIEKEKVEYMEKSKHLQEQLNELKTEIEALKLKERETALDI
 LHNENSDRGGSSKHNTIKKLTLSAKSRVAFEEEL

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-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 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:	<u>NP_000259</u>
RefSeq Size:	1785 bp
RefSeq ORF:	1788 bp
Locus ID:	4771
Cytogenetics:	22q12.2
Domains:	B41, ERM
Protein Families:	Druggable Genome
MW:	65.5 kDa
Gene Summary:	<p>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]</p>