

# **Product datasheet for RC401955**

## 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: Q320X

Affected Codon#: 320

Affected NT#: 958

Nucleotide Mutation: NF2 Mutant (Q320X), 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 Neomycin

Selection:

**Vector:** pCMV6-Entry (PS100001)

Tag: Myc-DDK
ACCN: NM 000268

ORF Size: 957 bp

**Restriction Sites:** Sgfl-Mlul

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ORF Nucleotide Sequence:

>RC401955 representing NM\_000268

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTCGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:** 

>RC401955 representing NM\_000268
Red=Cloning site Green=Tags(s)

MAGAIASRMSFSSLKRKQPKTFTVRIVTMDAEMEFNCEMKWKGKDLFDLVCRTLGLRETWFFGLQYTIKD TVAWLKMDKKVLDHDVSKEEPVTFHFLAKFYPENAEEELVQEITQHLFFLQVKKQILDEKIYCPPEASVL LASYAVQAKYGDYDPSVHKRGFLAQEELLPKRVINLYQMTPEMWEERITAWYAEHRGRARDEAEMEYLKI AQDLEMYGVNYFAIRNKKGTELLLGVDALGLHIYDPENRLTPKISFPWNEIRNISYSDKEFTIKPLDKKI DVFKFNSSKLRVNKLILQLCIGNHDLFMRRRKADSLEVQ

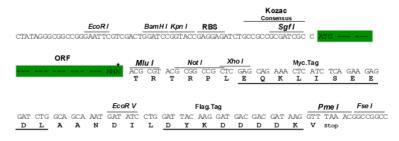
**SGPTRTRRL**EQKLISEEDLAANDILDYKDDDDK**V** 

Restriction Sites: Sgfl-Mlul



#### **Cloning Scheme:**





<sup>\*</sup> The last codon before the Stop codon of the ORF

#### 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 <a href="mailto:customport@origene.com">customport@origene.com</a> 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:
 957 bp

 RefSeq ORF:
 1788 bp

 Locus ID:
 4771

 Cytogenetics:
 22q12.2

Domains: B41, ERM

**Protein Families:** Druggable Genome

MW: 35.1 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]