

## Product datasheet for **RG226001**

### Neurofibromin (NF1) (NM\_001128147) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neurofibromin (NF1) (NM_001128147) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Neurofibromin
Synonyms:	NFNS; VRNF; WSS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226001 representing NM\_001128147  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCCGCGCACAGGCCGGTGGAAATGGGTCCAGGCCGTGGTCCAGCCGCTTCGACGAGCAGCTTCCAATAA  
 AAACAGGACAGCAGAACACACATACCAAAGTCAGTACTGAGCACAAACAAGGAATGCTAATCAATATTTTC  
 CAAATACAAGTTTTCTTTGGTTATAAGCGGCCTCACTACTATTTTAAAGAATGTTAAACAATATGAGAATA  
 TTTGGAGAAGCTGCTGAAAAAATTTATATCTCTCTCAGTTGATTATATTGGATACACTGGAAAAATGTC  
 TTGCTGGCAACCAAAGGACACAATGAGATTAGATGAAACGATGCTGGTCAAACAGTTGCTGCCAGAAAT  
 CTGCCATTTTCTCACACCTGTCGTGAAGGAAACCAGCATGCAGCTGAACCTCGGAATTCGCTCTGGG  
 GTTTTATTTTCTCAGCTGCAACAACCTCAATGCAGTCTTATGTCGATTTCTACCAGTTACAGGAAT  
 TAACTGTTTGTTCAGAAGACAATGTTGATGTTTCATGATATAGAATTGTTACAGTATATCAATGTGGATTG  
 TGCAAAATTTAAACGACTCCTGAAGGAAACAGCATTAAATTTAAAGCCCTAAAGAAGTTGCCGAGTTA  
 GCAGTTATAAATAGCCTGGAAAAGGCATTTTGGAACTGGGTAGAAAATTATCCAGATGAATTTACAAAAC  
 TGTACCAGATCCCACAGACTGATATGGCTGAATGTGCAGAAAAGCTATTTGACTTGGTGGATGGTTTTGC  
 TGAAAAGCACCAAACGTAAGCAGCAGTTTGGCCACTACAATCATTCTCCTTATCTTGTGTCCAGAAATA  
 ATCCAGGATATATCCAAAGACGTGGTTGATGAAAACAACATGAATAAGAAGTTATTTCTGGACAGCTAC  
 GAAAAGCTCTTGTGGCCATGGAGGAAGTAGGCAGCTGACAGAAAAGTGTGCAATTGCCTGTGTCAAAC  
 GTGTAAGCAAGTACTTACATCAATTGGGAAGTAACTCTGTCAATTTTCTACTTGTTCAGTCCATGGTG  
 GTTGATCTTAAGAACCTGCTTTTAAATCCAAGTAAGCCATTCTCAAGAGGCAGTCAGCCTGCAGATGTGG  
 ATCTAATGATTGACTGCCTTGTCTTGTCTTTCGTATAAGCCCTCACAAACAACCAACATTTAAGATCTG  
 CCTGGCTCAGAATTCACCTTCTACATTTCACTATGTGCTGGTAAATTCACTCCATCGAATCATACCAAT  
 TCCGCATTGGATTGGTGGCCTAAGATTGATGCTGTGATTGTCACTCGGTTGAACTTCGAAATATGTTTG  
 GTGAAACACTTCAATAAGCAGTGAAGTTGTGGAGCACACCCAGCAATACGAATGGCACCAGTCTTAC  
 ATTTAAAGAAAAAGTAACAAGCCTTAAATTTAAAGAAAAACCTACAGACCTGGAGACAAGAAGCTATAAG  
 TATCTTCTTGTCCATGGTAAACTAATTCATGCAGATCCAAAGCTCTTGTGTTGTAATCCAAGAAAAAC  
 AGGGGCCCGAAACCAAGGCAGTACAGCAGAATTAATTACAGGGCTCGTCCAACCTGGTCCCTCAGTCACA  
 CATGCCAGAGATTGCTCAGGAAGCAATGGAGGCTCTGCTGTTCTTTCATCAGTTAGATAGCATTGATTTG  
 TGAATCCTGATGCTCCTGTAGAAACATTTTGGGAGATTAGGTATATGTACTTTTATTTTTAAATTCAA  
 CTTTTAAATTTTATTTTGTATTTTGTCT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG226001 representing NM\_001128147  
 Red=Cloning site Green=Tags(s)

MAAHRPVEWVQAVVSRFDEQLPIKTGQQNTHTKVSTEHNKECLINISKYKFSLVISGLTTILKNVNMRI  
 FGEAAEKNLYLSQLIILDTEKLAGQPKDMRLDEMLVKQLLPEICHFLHTCREGNQHAALRNSASG  
 VLFSLSCNNFNAVFSRISTRLELTVCSSEDNVDVHDIELLQYINVDCAKLKRLKETAFAFKALKKVAQL  
 AVINSLEKAFWNWVNYNPFDEFTKLYQIPQDMAECAEKLFDLVDGFAESTKRKAAVWPLQIILLILCPEI  
 IQDISKDVVDENNMNKKLFLDSLRLKALAGHGGSRLTESAAIACVKLCKASTYINWEDNSVIFLLVQSMV  
 VDLKNLLFNPSKPF SRGSQPADVDLMIDCLVSCFRISPHNNQHFKICLAQNSPSTFHVYLVNSLHRIITN  
 SALDWWPKIDAVYCHSVELRNMFGETLHKAVQCGGAHPAIRMASLTFKEKVTSLKFKEKPTDLETRSYK  
 YLLL SMVKLIHADPKLLLCNPRKQGPETQGSTAELITGLVQLVPQSHMPEIAQEAMEALLVLHQLDSIDL  
 WNPDPVETFWEIFRYMYFYFLNSTFKFYFVFLS

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001128147

**ORF Size:** 1779 bp

**OTI Disclaimer:** 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.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_001128147.3](#)

**RefSeq Size:** 2889 bp

**RefSeq ORF:** 1782 bp

**Locus ID:** 4763

**UniProt ID:** [P21359](#)

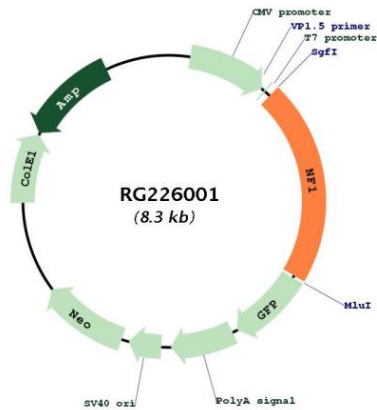
**Cytogenetics:** 17q11.2

**Protein Families:** Druggable Genome

**Protein Pathways:** MAPK signaling pathway

**Gene Summary:** This gene product appears to function as a negative regulator of the ras signal transduction pathway. Mutations in this gene have been linked to neurofibromatosis type 1, juvenile myelomonocytic leukemia and Watson syndrome. The mRNA for this gene is subject to RNA editing (CGA>UGA->Arg1306Term) resulting in premature translation termination. Alternatively spliced transcript variants encoding different isoforms have also been described for this gene. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG226001