

## Product datasheet for **RG205920**

### Neurofilament (NEFL) (NM\_006158) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neurofilament (NEFL) (NM_006158) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Neurofilament
Synonyms:	CMT1F; CMT2E; CMTDIG; NF-L; NF68; NFL; PPP1R110
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG205920 representing NM\_006158  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGTTCCTTCAGCTACGAGCCGTA  
 TACTACTCGACCTCCTACAAGCGGCGCTACGTGGAGACGCCCCGGG  
 TGCACATCTCCAGCGTGCAGCGGCTACAGCACCGCACGCTCAGCTTACTCCAGCTACTCGGCGCCGGT  
 GTCTTCTCGCTGTCCGTGCGCCGAGCTACTCCTCCAGCTCTGGATCGTTGATGCCAGTCTGGAGAAC  
 CTCGACCTGAGCCAGGTAGCCGCCATCAGCAACGACCTCAAGTCCATCCGCACGCAGGAGAAGGCGCAGC  
 TCCAGGACCTCAATGACCCTTCCGACGCTTATCGAGCGGTGCACGAGCTGGAGCAGCAGAACAAGGT  
 CCTGGAAGCCGAGCTGCTGGTGTGCGCCAGAAGCACTCCGAGCCATCCCCTTCCGGGCGCTGTACGAG  
 CAGGAGATCCGCGACCTGCGCTGGCGGCGGAAGATGCCACCAACGAGAAGCAGGCGCTCCAGGGCGAGC  
 GCGAAGGGCTGGAGGAGACCCTGCGCAACCTGCAGGCGCGCTATGAAGAGGAGGTGCTGAGCCGCGAGGA  
 CGCCGAGGGCCGGCTGATGGAAGCGCGCAAAGGCGCCGACGAGGGCGGCTCGCTCGCGCCGAGCTCGAG  
 AAGCGCATCGACAGCTTGATGGACGAAATCTCTTTTCTGAAGAAAGTGCACGAAGAGGAGATCGCCGAAC  
 TGCAGGCGCAGATCCAGTACGCGCAGATCTCCGTGGAGATGGACGTGACCAAGCCCGACCTTTCCGCCGC  
 GCTCAAGGACATCCGCGCGCAGTACGAGAAGCTGGCCGCAAGAACATGCAGAACGCTGAGGAATGGTTC  
 AAGAGCCGCTTACCGTGTGACCGAGAGCGCCGCAAGAACACCGACGCGCTGCGCGCCGCAAGGACG  
 AGGTGTCCGAGAGCCGTCTGCTCAAGGCCAAGACCTGGAATCGAAGCATGCCGGGGCATGAATGA  
 AGCGCTGGAGAAGCAGCTGCAGGAGCTGGAGGACAAGCAGAACCGCGACATCAGCGCTATGCAGGACAGC  
 ATCAACAAATTAGAAAATGAATTGAGGACCACAAAGAGTGAATGGCAGGATAACCTAAAAGAATACCAAG  
 ACCTCCTCAACGTGAAGATGGCTTTGGATATTGAGATTGACGTTACAGGAAACTCTTGGAAAGCGGAGGA  
 GACCCGACTCAGTTTACCAGCGTGGGAAGCATAACAGTGGCTACTCCAGAGCTCCAGGTCTTTGGC  
 CGATCTGCCTACGGCGGTTTACAGACCAGCTCCTATCTGATGTCCACCCGCTCCTTCCCGTCTACTACA  
 CCAGCCATGTCCAAGAGGAGCAGATCGAAGTGGAGGAAACCATTGAGGCTGCCAAGGCTGAGGAAGCCAA  
 GGATGAGCCCCCTCTGAAGGAGAAGCCGAGGAGGAGGAGAAGGACAAGGAAGAGCCGAGGAAGAGGAG  
 GCAGCTGAAGAGGAAGAAGCTGCCAAGGAAGAGTCTGAAGAAGCAAAAAGAAGAAGAAGGAGGTGAAG  
 GTGAAGAAGGAGAGGAAACCAAGAAGCTGAAGAGGAGGAGAAGAAGTTGAAGGTGCTGGGAGGAACA  
 AGCAGCTAAGAAGAAAGAT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG205920 representing NM\_006158  
 Red=Cloning site Green=Tags(s)

MSSFSYEPYYSTSYKRRYVETPRVHISSVRSYGSTARSAYSSYSAPVSSSLSVRRSYSSSSGSLMPSLEN  
 LDLSQVA AISNDLKSIRTQEKAQLQDLNDRFASFIERVHELEQQNKVLEALLVLRQKHSEPSRFALYE  
 QEIRDLRLAAEDATNEKQALQGEREGLEETLRNLQARYEEEEVLSREDAEGRLMEARKGADEAALARAELE  
 KRIDSLMDEISFLKKVHEEEIAELQAQIQYAQISVEMDVTKPDLAALKDIRAQYEKLAANKMNQNAEEWF  
 KSRFTVLTESAAKNTDAVRAAKDEVSESRLLKAKTLEIEACRGMNEALEKQLQELEDKQNDISAMQDT  
 INKLENELRRTTKSEMARYLKEYQDLLNVKMLDIEIAAYRKLLEGEETRLSFTSVGSITSGYSQSSQVFG  
 RSAYGGLQTSSYLMSTRSFPSSYYTSHVQEEQIEVEETIEAAKAEAKDEPPSEGEAEKEEEDKKEAEKEE  
 AAEKEEAAKEESEAEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEE  
 AAEKEEAAKEESEAEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEE

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_006158

**ORF Size:** 1629 bp

**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.

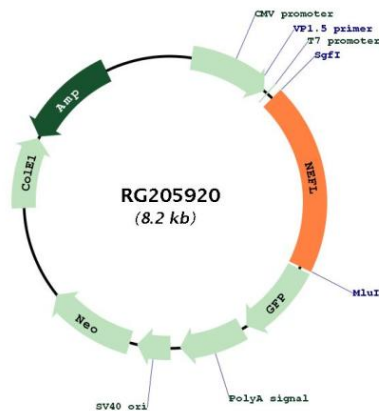
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**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:	<a href="#">NM_006158.5</a>
RefSeq Size:	3584 bp
RefSeq ORF:	1632 bp
Locus ID:	4747
UniProt ID:	<a href="#">P07196</a>
Cytogenetics:	8p21.2
Domains:	filament, filament_head
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS
Protein Pathways:	Amyotrophic lateral sclerosis (ALS)
Gene Summary:	Neurofilaments are type IV intermediate filament heteropolymers composed of light, medium, and heavy chains. Neurofilaments comprise the axoskeleton and they functionally maintain the neuronal caliber. They may also play a role in intracellular transport to axons and dendrites. This gene encodes the light chain neurofilament protein. Mutations in this gene cause Charcot-Marie-Tooth disease types 1F (CMT1F) and 2E (CMT2E), disorders of the peripheral nervous system that are characterized by distinct neuropathies. A pseudogene has been identified on chromosome Y. [provided by RefSeq, Oct 2008]

### Product images:



Circular map for RG205920