

## Product datasheet for SC110961

### NFH (NEFH) (NM\_021076) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NFH (NEFH) (NM_021076) Human Untagged Clone
Tag:	Tag Free
Symbol:	NFH
Synonyms:	CMT2CC; NFH
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC110961 sequence for NM_021076 edited (data generated by NextGen Sequencing)

```

ATGATGAGCTTCGGCGGCGCGGACGCGCTGCTGGGCGCCCGTTTCGCGCCGCTGCATGGC
GGCAGCAGCCTCCACTACGCGCTAGCCCGAAAGGGTGGCGCAGGCGGACGCGCTCCGCC
GCTGGCTCCTCCAGCGGCTTCCACTCGTGGACACGGACGTCCGTGAGCTCCGTGTCCGCC
TCGCCCAGCCGCTTCCGTGGCGCAGGCGCCGCTCAAGCACCGACTCGCTGGACACGCTG
AGCAACGGGCGGAGGGCTGCATGGTGGCGGTGGCCACCTCACGCAGTGAGAAGGAGCAG
CTGCAGGCGCTGAACGACCGCTTCGCCGGGTACATCGACAAGGTGCGGCAGCTGGAGGCG
CACAAACCGCAGCCTGGAGGGCGAGGCTGCGGCGCTGCGGCAGCAGCAGGCGGGCCGCTCC
GCTATGGGCGAGCTGTACGAGCGCGAGGTCCGCGAGATGCGCGGCGCGGTGCTGCGCCTG
GGCGCGGCGCGGTCAGCTACGCTGGAGCAGGACACCTGCTCGAGGACATCGCGCAC
GTGCGCCAGCGCCTAGACGACGAGGCCCGCAGCGAGAGGAGGCCGAGGCGGCGGCCCGC
GCGCTGGCGCGCTTCGCGCAGGAGGCCGAGGCGGCGCGCTGGACCTGCAGAAGAAGGCG
CAGGCGCTGCAGGAGGAGTGCAGGCTACCTGCGGCGCCACCACCAGGAAGAGGTGGGCGAG
CTGCTCGGCCAGATCCAGGGCTCCGGCGCCGCGCAGGCGCAGATGCAGGCCGAGACGCGC
GACGCCCTGAAGTGCAGCGTGACGTGCGGCGCTGCGCGAGATTCGCGCGCAGCTTGAAGGC
CACGCGGTGCAGAGCACGCTGCAGTCCGAGGAGTGGTTCCGAGTGAAGGCTGGACCGACTG
TCGGAGGCAGCCAAGGTGAACACAGACGCTATGCGCTCAGCGCAGGAGGAGATAACTGAG
TACCGGCGTCAGCTGCAAGGCCAGGACCACAGAGCTGGAGGCACTGAAAAGCACCAAGGAC
TCACTGGAGAGGCGCGCTCTGAGCTGGAGGACCGTCATCAGGCCGACATTGCCTCCTAC
CAGGAAGCCATTAGCAGCTGGACGCTGAGCTGAGGAACACCAAGTGGGAGATGGCCGCC
CAGCTGCGAGAATACCAGGACCTGCTCAATGTCAAGATGGCTCTGGATATAGAGATAGCC
GCTTACAGAAAATCCTGGAAGGTGAAGAGTGTGCGATTGGCTTTGGCCCAATTCCTTTC
TCGCTTCCAGAAGGACTCCCCAAAATTCCTCTGTGTCCACTCACATAAAGGTGAAAAGC
GAAGAGAAGATCAAAGTGGTGGAGAAGTCTGAGAAAGAACTGTGATTGTGGAGGAACAG
ACAGAGGAGACCAAGTACTGAAGAAGTACTGAAGAAGAGGAGAAAGAGGCCAAAGAG
GAGGAGGCAAGGAGGAAGAAGGGGGTGAAGAAGAGGAGGCAGAAAGGGGAGAAGAAGAA

```



[View online »](#)

ACAAAGTCTCCCCAGCAGAAGAGGCTGCATCCCCAGAGAAGGAAGCCAAGTCACCAAGTA  
 AAGGAAGAGGCAAAGTCACCGGCTGAGGCCAAGTCCCCAGAGAAGGAGGAAGCAAATCC  
 CCAGCCGAAGTCAAGTCCCCTGAGAAGGCCAAGTCTCCAGCAAAGGAAGAGGCAAAGTCA  
 CCGCTGAGGCCAAGTCCCCAGAGAAGGAGGAAGCAAATCTCCAGCTGAGGTCAAGTCC  
 CCCGAGAAGGCCAAGTCCCCAGCAAAGGAAGAGGCAAAGTCAACCGGCTGAGGCCAAGTCT  
 CCAGAGAAGGCCAAGTCCCCAGTGAAGGAAGAAGCAAAGTCAACCGGCTGAGGCCAAGTCC  
 CCAGTGAAGGAAGAAGCAAATCTCCAGCTGAGGTCAAGTCCCCGAAAAGGCCAAGTCT  
 CCAACGAAGGAGGAAGCAAAGTCCCCTGAGAAGGCCAAGTCCCCAGAGAAGGAAGAGGCC  
 AAGTCCCCTGAGAAGGCCAAGTCCCAGTGAAGGCAGAAGCAAAGTCCCCTGAGAAGGCC  
 AAGTCCCAGTGAAGGCAGAAGCAAAGTCCCCTGAGAAGGCCAAGTCCCAGTGAAGGAA  
 GAAGCAAAGTCCCCTGAGAAGGCCAAGTCCCAGTGAAGGAAGAAGCAAAGTCCCCTGAG  
 AAGGCCAAGTCCCAGTGAAGGAAGAAGCAAAGACCCCGAGAAGGCCAAGTCCCAGTG  
 AAGGAAGAAGCCAAGTCCCAGAGAAGGCCAAGTCCCAGAGAAGGCCAAGACTTTGAT  
 GTGAAGTCTCAGAAGCCAAGACTCCAGCGAAGGAGGAAGCAAGTCCCCTGCAGACAAA  
 TTCCCTGAAAAGGCCAAAAGCCCTGTCAAGGAGGAGGTCAAGTCCCAGAGAAGGCGAAA  
 TCTCCCCTGAAGGAGGATGCCAAGGCCCTGAGAAGGAGATCCCAAAAAAGGAAGAGGTG  
 AAGTCCCAGTGAAGGAGGAGGAGAAGCCCAGGAGGTGAAAGTCAAAGAGCCCCCAAAG  
 AAGGCAGAGGAAGAGAAAAGCCCCTGCCACACAAAAACAGAGGAGAAGAAGGACAGCAAG  
 AAAGAGGAGGCCACCAAGAAGGAGGCTCCAAAGCCCAAGTGGAGGAGAAGAAGGAACCT  
 GCTGTGCGAAAAGCCAAAGAATCCAAAGTTGAAGCCAAGAAGGAAGAGGCTGAAGATAAG  
 AAAAAAGTCCCCACCCAGAGAAGGAGGCTCCTGCCAAGTGGAGGTGAAGGAAGACGCT  
 AAACCCAAAGAAAAGACAGAGGTGGCCAAGAAGGAACCATGATGCCAAGGCCAAGGAA  
 CCCAGCAAACACAGAGAGAAGAAGGAGGACACCCGGAGAAAAAAGACACCAAGGAGGAG  
 AAGGCCAAGAAGCCTGAGGAGAAAACCCAAAGACAGAGGCCAAAGCCAAGGAAGATGACAAG  
 ACCCTCTCAAAGAGCCTAGCAAGCCTAAGGCAGAAAAGGCTGAAAAATCTCCAGCACA  
 GACCAAAAAGACAGCAAGCCTCCAGAGAAGGCCACAGAAGACAAGGCCCGCCAAGGGGAAG  
 TAA

Clone variation with respect to NM\_021076.3

2232 t=>c;2784 a=>g

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_021076 unedited

NGGTCATAATTGTATACGACTACTATAGGCGGCCGGAATCGGCACGAGCCGTCGCCG  
 CTCGCGCACCTGCTCAGGCCATGATGAGCTTCGGCGGCGCGGACGCGCTGCTGGGCGCCC  
 CGTTTCGCGCCGCTGCATGGCGGCGGCGAGCCTCCACTACGCGCTAGCCCGAAGGTTGGCG  
 AGGCGGGACGCGCTCCGCGCTGGCTCCTCCAGCGGCTTCCACTCGTGGACACGGACGTC  
 CGTGAGCTCCGTGTCGCTCGCCAGCCGCTTCCGTGGCGCAGGCGCCGCTCAAGCAC  
 CGACTCGCTGGACACGCTGAGCAACGGGCCGGAGGGCTGCATGGTGGCGGTGGCCACCTC  
 ACGCAGTGAGAAGGAGCAGCTGCAGGCGCTGAACGACCGCTTCGCCGGGTACATCGACAA  
 GGTGCGGCAGCTGGAGGCGCACAACCGCAGCCTGGAGGGCGAGGCTGCGGCGCTGCGGCA  
 GCAGCAGGCGGGCCGCTCCGCTATGGGCGAGCTGTACGAGCGGAGGTCGCGGAGATGCG  
 CGGCGCGGTGCTGCGCTGGGCGCGGCGCGGTCAGCTACGCTGGAGCAGGAGCACCT  
 GCTCGAGGACATCGCGCACGTGCCAGCGCCTAGACGACAGGCCCGGCGAGGAGGA  
 GGCCGAGGCGGCGCCCGCGCTGGCGCGCTTCGCGCANGAGGCCGAGGCGGCGCGCT  
 GGACCTGCAGAAGAAGCGCAGGCGCTGCAGGAGGAGTGGCGCTACCTGCGGCGCCACCAC  
 CAGGAAGAGGTGGGCGAGCTGCTCGGCCAGATCCAGGGCTCCGGCGCCGCGCCAGCGCAG  
 ATGCANGCCGAGACGCGGACGCCCTGAAGTGCGACGTGACGTCCGCGCTGCGCGAGATC  
 C

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_021076 unedited GTACCGCGGCACGCAATCTAGTAGTCGAGNNNNNTTTTTTTTTTTTTTTTTTCCATTT TATAAGCACTTGGTTTTATTGCACAGATACAATTGAAAGTGAAGTCCAGTGGAAAGTGCG CCCTGGCATAATTCATTGGCCAGTGCCCGGCCACCTGGACCGCTTCCAAAATAAAG AGCTCTGGGCAAGGGCTTGACCACTCCTTTGGAAAACAGAAGGCATTTGGGAATAGGTTA AGACATCTCAAGCATAATGTATTTCTAACTGCTCATTATTGCGGTCATCTGTCAGT TGCACATAGAGGCAATAAATGCACTTATTGGAAAGGAGGGGGCAGTTTTTATAGTCAA GTGTTTACGTGTGGCATTTCGGCATGTATCACATTCAGCTACATAAGCTATCATAATTGTC CATCGCCTGGGGAGGGCATGGGGCAGGGGCTGGGAGTGCCCTCTTGTCTAACATATG GCTAACAAAAATTCCTGTTTGAAGAAGGAGGCCCGTCATCTAACAGTTTTCTTTTTAC TAAAAACAGAAAAAGTAAAAATTGTGTTACTCTGATCCTTGACCTCCGGGACTCTTCTG AGTTTTTTGGCCTGTTCCGGTGTTCCTTTCCCTGCCTTACTTCCCCTGGGCGCCTTGT TTTTTGGGCCTCTTTGAAGCTCGCTGTCTTTTGGCCGGCCTGAAGAATTTAAACC CTTTCTGCCCTAGCTTGAAGGCTTTTAAAAAGCCTTCGGAATTTCTCTTGGCTTAGC CCTCTGTCTTGGTTCTCCAAAAGCTTTTGGACCCTTCCCCCCTCGGTGTCTCTTTN TCCCCGGGCCCGCCCTTCTCTCTGCCGTTTCGCGTGGTCTCTCCGCCGGTCATATC TCGTTTTCTTTTTCCACCCCGGTTTCTTTGACTAAGCGCTTCTCCTATCCTCCACT TTATGAGACTACTTTTTGGCGTCCACTCCTCTTCTTCCGCCGTCTCTCGGTCC CTGCCGTCTCTCCTCG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_021076
<b>Insert Size:</b>	3740 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_021076.2</a> , <a href="#">NP_066554.2</a>
<b>RefSeq Size:</b>	3695 bp
<b>RefSeq ORF:</b>	3063 bp
<b>Locus ID:</b>	4744
<b>UniProt ID:</b>	<a href="#">P12036</a>
<b>Cytogenetics:</b>	22q12.2
<b>Domains:</b>	filament

**Protein Families:** Druggable Genome

**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 functionally maintain neuronal caliber. They may also play a role in intracellular transport to axons and dendrites. This gene encodes the heavy neurofilament protein. This protein is commonly used as a biomarker of neuronal damage and susceptibility to amyotrophic lateral sclerosis (ALS) has been associated with mutations in this gene. [provided by RefSeq, Oct 2008]