

## Product datasheet for MR227134

### Nefh (NM\_010904) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nefh (NM_010904) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nefh
Synonyms:	mKIAA0845; NF-H; NF200; Nfh
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR227134 representing NM_010904, <b>codon optimized</b> . Due to the complexity of NM_010904, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGATGTCCTTCGGATCAGCAGACGCGCTTCTCGGCGCCCTTTTGTCTCTTTCATGGCGCGGTTCTC  
TTCATTACAGCCTGAGCCGCAAAGCAGGGCCAGGCGGGACCCGGAGCGCTGCTGGCTCCAGTAGCGGTTT  
CCACTCATGGGCCCGCACCAGCGTCAGTTCTGTGAGTGCTAGTCCAAGCAGGTTTCGGGGAGCAGCCTCT  
TCTACGGACTCTCTGGATACCCTTAGCAACGGGCCGAGGGATGTGTCGTTGCAGCCGTCGCTGCGCGCA  
GCGAGAAGGAGCAGCTGCAGGCTCTGAATGATCGCTTTGCTGGATACATTGATAAAGTTCGGCAACTGGA  
AGCTCATAATAGATCTCTCGAAGGTGAGGCAGCCGCCCTCAGGCAGCAGCAGGCCGGACGAGCCGCTATG  
GGAGAAGTCTACGAAAGAGAGGTCCGGGAAATGAGAGGGGCCGTGCTCAGACTGGGCGCTGCTCGAGGGC  
AATTGAGGCTCGAGCAGGAACACTTGTCTGAGGATATCGCCACGTCGGCAGAGACTGGACGAGGAGGC  
TAGACAGCGCGAAGAGGCCGAAGCTGCCGCCAGAGCCTTGCCACGCTTCGCCAAGAGGCTGAGGCTGCT  
CGCGTTGAACTGCAGAAGAAAGCCAGGCACTGCAGGAAGAATGTGGATACCTGCGCCGGCACCATCAGG  
AAGAAGTCGGGGAGTTGCTGGGACAGATTCAAGGCTGCGGCGCCGCCAGGCACAAGCCAGGCCGAAGC  
CCGGGACGCTCTGAAATGTGATGTCACGAGCGCACTCCGCGAGATACGAGCCAGCTGGAGGGGCACGCC  
GTGCACTCAACTCCAGTCAGAGGAATGGTTCAGAGTCCGGCTGGATCGACTGTCCGAGGCCGAAAGG  
TGAATACAGACGCCATGCGCTCTGCACAGGAAGAGATAACAGAGTACAGACGGCAGCTGCAGGCTAGGAC  
TACCGAGCTCGAAGCACTCAAGAGCACCAAGGAGAGTTTGGAGAGACAACGGAGCGAGCTGGAGGATAGG  
CACCAGGCTGACATTGCTTCATACCAAGACGCGATCCAACAGTTGGATTCCGAAGTCCGCAATACCAAT



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GGGAGATGGCCGCTCAGCTCAGAGAATACCAAGACCTGTTGAATGTCAAGATGGCTCTGGATATTGAGAT  
TGCTGCTTACCGCAAAGTCTGGAAGGCGAAGAGTGCCGGATAGGCTTTGGCCCCCTACCATTTTCTCTG  
ACAGAAGGACTTCCCAAGATCCCCAGCATCAGTACTCATATCAAAGTTAAAAGTGAGGAAATGATCAAGG  
TGGTAGAGAAGAGCGAAAAAGAAACGGTCATAGTGGAGGGTCAAAGTGAAGAAATCAGGGTGACCGAGGG  
CGTGACCGAGGAAGAATAAAGAAGCGCAAGGGCAAGAGGGGGAGGAAGCCGAGGAAGGTGAAGAAAAG  
GAGGAAGAAGAAGGGGCTGCTGCCACATCCCCGCCAGCAGAAGAGGCCGCCAGCCAGAGAAAAGAGACTA  
AGAGCCGGGTGAAGGAGGAAGCCAAATCACCTGGCGAGGCCAAATCTCCCGGAGAGGCCAAAAGCCAGC  
TGAAGCAAAGTCCCAGGGGAGGCAAAGTCCCCAGGTGAGGCCAAGTCTCCCGGAGAGGCCAAGTCTCCA  
GCTGAGCCAAAGTCAACGAGCGGAGCCAAAAAGTCTGCTGAAGCAAAGAGCCCGCAGAGCCTAAATCTC  
CCGCAACCGTCAAAGGCCAGGGCAGGGTAAATCCCCTAGTGAGGCCAAATCTCCCGCTGAAGCCAAAGAG  
CCCCGCCGAGGCTAAAAGCCCCGAGAAGCCAAGAGTCTGCGAAGCCAAATCTCCAGCGGAGGCCAAA  
TCACCTGCGGAGGCAAAGTCCAGCGACCGTGAAGTCTCCGGGCGAGGCTAAGTACCATCCGAAGCTA  
AGTCTCCGGCCGAGGCTAAATCCCCAGCAGAAGCAAAGTCTGCGGAGGCTAAAAGCCCCGCTGAGGT  
GAAAAGTCTGGCGAGGCCAAATCTCTGCTGAGCCTAAGTCTCCTGCAGAGGCCAAAATCCCCGGCTGAG  
GTCAAAGCCCCCGGAAGCTAAGTCCCCGCTGAAGTAAAATCCCCTGGAGAAGCCAAGAGCCCCGCTG  
CCGTCAAGTACCCGCGGAAGCTAAGTCTCCCGCTGCTGTCAAATCACCCGGGGAGGCTAAGTCACTGG  
AGAGGCTAAGTCAACCGCAGAGGCCAAAAGCCCTGCCGAAGCTAAGTCCCCCATCGAAGTAAAGAGCCCT  
GAAAAGGCAAAGACCCCGGTGAAGAGGGTGCCAAAGTCCCCCGCGAGGCCAAAGTCCCCCGAGAAGGCCAA  
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GAAAGAAGGGGCTAAACCACCAGAGAAGGCCAAAGCCTCTGGACGTGAAGAGCCCAGAGGCACAGACCCA  
GTCCAGGAAGAGGCCAAACACCTACGGACATTCGGCCGCCAGAACAGGTGAAGTCAACCCGAAAAGAGA  
AGGCCAAGAGTCTGAGAAGGAAGAGGCTAAGACTTCCGAGAAGGTGGCTCCTAAAAAGAGGAAGTAAA  
AAGTCCCGTCAAAGAAGAGGTGAAAGTAAAGAGCCACCGAAGAAGTCAAGAAGAGAAAACCTTTGCCT  
ACTCCCAAGACAGAGGCCAAGGAATCTAAAAAGGACGAAGTCTTAAGGAGGCTCAAAGCCCAAGGTCTG  
AGGAAAAAAGGAGACTCCAACAGAGAAGCCTAAAGACAGCACCCGCCAAGCCAAAAGGAGGAGGCGGG  
CGAGAAGAAAAGGCTGTTGCGAGCGAGGAGGAGACACCAGCAAAGTGGGAGTGAAGGAAGAGGCCAAG  
CCCAAAGAAAAGACCGAAACAACAAGACGGAGGCCGAGGACACTAAGGCTAAAGAACCAAGTAAACCCA  
CCGAAACTGAAAAGCCAAAAAAGAGGAGATGCCCGCTGCTCCTGAAAAGAAGGATACCAAGGAGGAAAA  
AACTACCGAGAGCAGGAAGCCGGAGGAAAAGCCTAAGATGGAGGCCAAGGTCAAGGAAGACGATAAGTCC  
CTGTCAAAGAACCGAGCAAGCCAAAACGGAGAAGGCAGAAAAGAGCTTCTACAGATCAAAAAGAGT  
CCCAACCCCAAGAGAAAACACAGAGGATAAGGCCACGAAGGGCGAGAAG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR227134 representing NM\_010904  
 Red=Cloning site Green=Tags(s)

MMSFGSADALLGAPFAPLHGGGSLHYLSRKAAGPGGTRSAAGSSSGFHSWARTSVSSVSASPSRFRGAAS  
 STDSDLTSLNGPEGCVVAARSEKEQLQALNDRFAGYIDKVRQLEAHNRSLEGEAAALRQQAGRAAM  
 GELYEREVREMRGAVLRLGAARGQLRLEQEHLLEDIAHVRQRLDEEARQREEAAARALARFAQEAEAA  
 RVELQKKAQALQEECGYLRRHHQEEVGEELLGQIQCGGAAQAQAQAEARDALKCDVTSALREIRAQLEGHA  
 VQSTLQSEEWFRVRLDRLSEAAKVNTDAMRSAQEIEITYRRQLQARTTELEALKSTKESLERQRSELEDR  
 HQADIASYQDAIQQLDSELNRTKWEMAAQLREYQDLLNVKMALDIEIAAYRKLLEGEECRIGFGPSPFSL  
 TEGLPKIPSIETHIKVKSEEMIKVVEKSEKETVIVEGQTEEIRVTEGVTEEDKEAQQQEGEEAEEGEEK  
 EEEEGAAATSPPAEEAASPEKETKSRVKEEAKSPGEAKSPGEAKSPAEAKSPGEAKSPGEAKSPGEAKSP  
 AEPKSPAEPKSPAEPKSPATVKSPGEAKSPSEAKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPK  
 SPAEPKSPATVKSPGEAKSPSEAKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEP  
 VKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSP  
 EKAKTPVKEGAKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEP  
 VQEEAKHPTDIRPPEQVKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEPKSPAEP  
 TPKEAKESKKDEAPKEAPKPKVEEKETPTEKPKDSTAEAKKEEAGEKKKAVASEEETPAKLGVKEEAK  
 PKEKTETTKTEAEDTKAKEPSKPTETEKPKKEEMPAPEKDKTKEEKTESRKPEEKPKMEAKVKEDDKS  
 LSKEPSKPKTEKAEKSSSTDQKESQPPEKTTEDKATKGEK

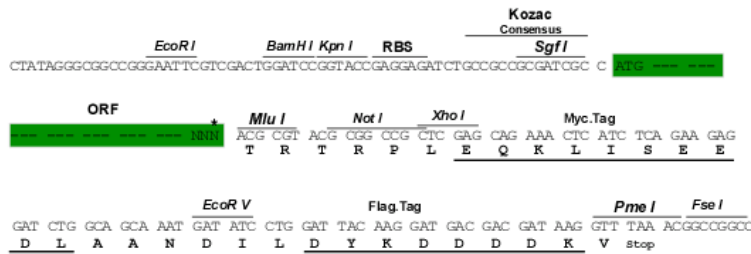
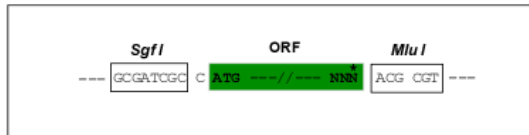
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



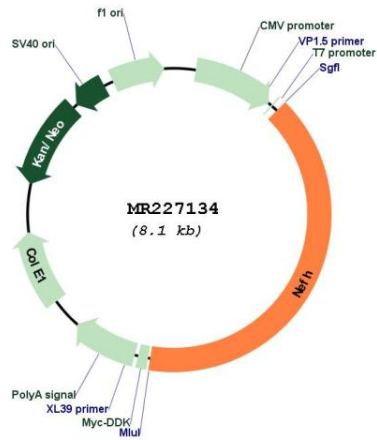
\* The last codon before the Stop codon of the ORF

ACCN: NM\_010904

ORF Size: 3270 bp

<b>OTI Disclaimer:</b>	<p>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:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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_010904.3</a> , <a href="#">NP_035034.2</a>
<b>RefSeq Size:</b>	4004 bp
<b>RefSeq ORF:</b>	3273 bp
<b>Locus ID:</b>	380684
<b>UniProt ID:</b>	<a href="#">P19246</a>
<b>Cytogenetics:</b>	11 3.12 cM
<b>MW:</b>	117 kDa
<b>Gene Summary:</b>	Neurofilaments usually contain three intermediate filament proteins: L, M, and H which are involved in the maintenance of neuronal caliber. NF-H has an important function in mature axons that is not subserved by the two smaller NF proteins.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227134