

## Product datasheet for **RG228506**

### Neurofascin (NFASC) (NM\_001005389) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neurofascin (NFASC) (NM_001005389) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NFASC
Synonyms:	NEDCPMD; NF; NRCAML
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG228506 representing NM\_001005389  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCCAGGCAGCCACCGCCGCTGGGTCCATGCAGCCTTCCTCCTCGCCTCCTCAGTCTTGGCGGAG  
 CCATCGAAATTCCTATGGATCCAAGCATTGAGAAATGAGCTGACGAGCCGCCAACCATCACCAAGCAGTC  
 AGCGAAGGATCACATCGTGGACCCCGTGATAACATCCTGATTGAGTGTGAAGCAAAAGGGAACCCCTGCC  
 CCCAGTTCCTACTGGACACGAAACAGCAGATTCTCAACATCGCCAAGGACCCCGGGTGTCCATGAGGA  
 GGAGGTCTGGGACCTGGTATTGACTTCCGCAGTGGCGGGCGCCGGAGGAATATGAGGGGAATATCA  
 GTGCTTCGCCGCAACAAATTTGGCACGGCCCTGTCCAATAGGATCCGCCTGCAGGTGTCTAAATCTCT  
 CTGTGGCCCAAGGAAACCTAGACCCTGTCGTGGTCCAAGAGGGCGCTCCTTTGACGCTCCAGTGAACCC  
 CCCCCTGGACTTCCATCCCCGGTTCATCTTGGATGAGCAGTCCATGGAGCCATCACCCAAGACAA  
 ACGTGTCTCTCAGGGCCATAACGGAGACCTATACTTCTCCAACGTGATGCTGCAGGACATGCAGACCGAC  
 TACAGTTGTAACGCCCGTTCCTTCCACCCACACCATCCAGCAGAAGAACCCTTTCACCCTCAAGGTCC  
 TACCACCCGAGGAGTTGCAGAAAGAACAACCAAGCTTCATGTATCCCCAGGGCACCGGAGCAGCCAGAT  
 GGTGCTTCGTGGCATGGACCTCCTGCTGGAATGCATCGCCTCCGGGGTCCCAACACCAGACATCGCATGG  
 TACAAGAAAGGTGGGACCTCCCATCTGATAAGGCCAAGTTTGAAGAACTTAATAAGGCCCTGCGTATCA  
 CAAATGTCTCTGAGGAAGACTCCGGGGAGTATTCTGCTGGCCTCCAACAAGATGGGCAGCATCCGGCA  
 CACGATCTCGGTGAGAGTAAAGGCTGCTCCCTACTGGTGGACGAACCCAAGAACCTTATTCTGGTCTCT  
 GGCGAGGATGGGAGACTGGTGTGTCGAGCAATGGAACCCCAACCCACTGTCCAGTGGATGGTGAATG  
 GGAACCTTTGCAATCGGCACCACCTAACCCAACCCGTGAGGTGGCCGGAGACACCATCATCTTCGGGA  
 CACCCAGATCAGCAGCAGGGCTGTGTACCAAGTCAACACCTCCAACGAGCATGGCTACCTGCTGGCCAAC  
 GCCTTTGTCAGTGTGCTGGATGTGCCGCTCGGATGCTGTGCGCCCGGAACCAGCTCATTGAGTGATTC  
 TTTACAACCGGACGCGGCTGGACTGCCCTTTCTTTGGGTCTCCCATCCCCACACTGCGATGGTTTAAAGAA  
 TGGGCAAGGAAGCAACCTGGATGGTGGCAACTACCATGTTTATGAGAACGGCAGTCTGGAATTAAGATG  
 ATCCGCAAAGAGGACCAGGGCATCTACACCTGTGTCGCCACCAACATCCTGGGCAAAGCTGAAAACCAAG  
 TCCGCTGGAGGTCAAAGACCCACCAGGATCTACCGGATGCCCGAGGACCAGGTGGCCAGAAGGGGCAC  
 CACGGTGCAGCTGGAGTGTGGGTGAAGCAGACCCCTCCCTGAAACTCACCGTCTCCTGGCTGAAGGAT  
 GACGAGCCGCTCTATATTGGAACAGGATGAAGAAGGAAGACGACTCCCTGACCATCTTTGGGGTGGCAG  
 AGCGGGACCAGGCGAGTTACACGTGTGTCGCCAGCACCGAGCTAGACCAAGACCTGGCCAAGGCCTACCT  
 CACCGTGTAGGTAAGTCCCATGCTCACCTGGCAC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG228506 representing NM\_001005389  
 Red=Cloning site Green=Tags(s)

MARQPPPPWVHAFLCLLSLGGAIPIPMPSIQNELTQPPTITKQSAKDHIIVDPRDNILIECEAKGNPA  
 PSFHWTRNSRFFNIAKDPRVSMRRRSGTLVIDFRSGGRPEEYEGEYQCFARNKFGTALS NRIRLQVSKSP  
 LWPKENLDPVVVQEGAPLTLQCNPPLPSPVIFWMSSMEPITQDKRVSQGHNGDL YFSNVMLQDMQTD  
 YSCNARFHFTHTIQQKNPFTLKVLTTRGVAERTPSFMYPQGTASSQMLRGMDDLLECIASGVPTPDIAW  
 YKKGDLPSDKAKFENFNKALRITNVSEEDSGEYFCLASNKMGSI RHTISVRVKAAPYWLDEPKNILAP  
 GEDGRLVCRANGNPKPTVQWMVNGEPLQSAPPNPNREVAGDTIIFRDTQISSRAVYQCNTSNEHGYLLAN  
 AFVSVLDVPPRMLSPRNQLIRVILYNRRLDCPFFGSP IPTLRWFKNGQGSNLDGNGYHVYENGSL EIKM  
 IRKEDQGIYTCVATNILGKAENQVRLEVKDPTR IYRMPEDQVARRGTTVQLECRVKHDP SLKLTVSWLKD  
 DEPLYIGNRMKEDDSLIFGVAERDQGSYTCVASTELDQDLAKAYLTVLGNPCSPWH

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



<b>OTI Disclaimer:</b>	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>
<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_001005389.2</a>
<b>RefSeq Size:</b>	2527 bp
<b>RefSeq ORF:</b>	1860 bp
<b>Locus ID:</b>	23114
<b>UniProt ID:</b>	<a href="#">O94856</a>
<b>Cytogenetics:</b>	1q32.1
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Cell adhesion molecules (CAMs)
<b>Gene Summary:</b>	<p>This gene encodes an L1 family immunoglobulin cell adhesion molecule with multiple IGcam and fibronectin domains. The protein functions in neurite outgrowth, neurite fasciculation, and organization of the axon initial segment (AIS) and nodes of Ranvier on axons during early development. Both the AIS and nodes of Ranvier contain high densities of voltage-gated Na<sup>+</sup> (Nav) channels which are clustered by interactions with cytoskeletal and scaffolding proteins including this protein, gliomedin, ankyrin 3 (ankyrin-G), and betaIV spectrin. This protein links the AIS extracellular matrix to the intracellular cytoskeleton. This gene undergoes extensive alternative splicing, and the full-length nature of some variants has not been determined. [provided by RefSeq, May 2009]</p>