

Product datasheet for **RG228501**

Neurofascin (NFASC) (NM_001160333) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Neurofascin (NFASC) (NM_001160333) 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:

>RG228501 representing NM_001160333
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCAGGCAGCCACCGCCGCTGGGTCCATGCAGCCTTCCTCCTCGCTCCTCAGTCTTGGCGGAG
 CCATCGAAATTCCTATGGATCTGACGCAGCCGCCAACCATCACCAAGCAGTCAGCGAAGGATCACATCGT
 GGACCCCGTGATAACATCCTGATTGAGTGTGAAGCAAAAGGAAACCCTGCCCCAGCTTCCACTGGACA
 CGAAACAGCAGATTCTTCAACATCGCCAAGGACCCCGGGTGTCCATGAGGAGGAGGTCTGGGACCTGG
 TGATTGACTTCCGCAGTGGCGGGCGCCGGAGGAATATGAGGGGGAATATCAGTGCCTCGCCGCAACAA
 ATTTGGCAGGCCCTGTCCAATAGGATCCGCTGCAGGTGTCTAAATCTCCTCTGTGGCCCAAGGAAAAAC
 CTAGACCTGTCTGGTCCAAGAGGGCGCTCCTTTGACGCTCCAGTGAACCCCGCTGGACTCCAT
 CCCCAGTATCTTCTGGATGAGCAGCTCCATGGAGCCCATCACCAAGACAAACGTGTCTCTCAGGGCCA
 TAACGGAGACCTATACTTCTCAACGTGATGCTGCAGGACATGCAGACCGACTACAGTTGTAACGCCGC
 TTCCACTTCACCCACACCATCCAGCAGAAGAACCCTTTACCCTCAAGGTCTCACCCAGGAGGTTG
 CAGAAAGAACACCAAGCTTCATGTATCCCCAGGGCACCGCAGCAGCAGATGGTCTTCGTGGCATGGA
 CCTCTGTGGAATGCATCGCCTCCGGGTCCCAACACAGACATCGCATGGTACAAGAAAGGTGGGGAC
 CTCCCATCTGATAAGGCCAAGTTTGAAGCTTTAATAAGGCCCTGCGTATCACAAATGTCTCTGAGGAAG
 ACTCCGGGAGTATTTCTGCCTGGCCTCCAACAAGATGGGCAGCATCCGGCACACGATCTCGGTGAGAGT
 AAAGGCTGCTCCCTACTGGCTGGACGAACCAAGAACCTTATTCTGGCTCCTGGCGAGGATGGGAGACTG
 GTGTGTCGAGCCAATGAAACCCCAACCCACTGTCCAGTGGATGGTGAATGGGGAACCTTTGCAATCGG
 CACCACCTAACCAACCGTGAAGTGGCCGGAGACACCATCATCTTCGGGACACCCAGATCAGCAGCAG
 GGCTGTGTACCAGTGCAACACCTCAACGAGCATGGCTACCTGCTGGCCAACGCCTTTGTCAAGTGTCTG
 GATGTGCCGCTCGGATGCTGTGCCCGGAACAGCTCATTGAGTGATTCTTTACAACCGGACGCGGC
 TGGACTGCCCTTTCTTTGGTCTCCCATCCCCACACTGCGATGGTTAAGAATGGGAAGGAAGCAACCT
 GGATGGTGGCACTACCATGTTTATGAGAACGGCAGTCTGAAATTAAGATGATCCGCAAAGAGGACCAG
 GGCATCTACCTGTGTGCCACCAACATCCTGGGCAAAGCTGAAAACCAAGTCCGCCTGGAGGTCAAAG
 ACCCCACAGGATCTACCGGATGCCGAGGACCAGGTGGCCAGAAGGGGACCACGGTGCAGCTGGAGTG
 TCGGGTGAAGCAGACCCCTCCCTGAAACTCACCGTCTCCTGGCTGAAGGATGACGAGCCGCTCTATATT
 GGAACAGGATGAAGAAGGAAGCAGACTCCCTGACCATCTTTGGGTGGCAGAGCGGGACCAGGGCAGTT
 ACACGTGTGTGCCAGCACCAGCTAGACCAAGACCTGGCCAAGGCTACCTCACCGTGTAGGTAAGTACTG
 CCCATGCTCACCTGGCAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG228501 representing NM_001160333
 Red=Cloning site Green=Tags(s)

MARQPPPPWHAFLCLLSLGGAIPIPMDLTQPPTITKQSAKDHIIVDRDNIIECEAKGNPAPSFHWT
 RNSRFFNIAKDPVSMRRRSGTLVIDFRSGRPEEYEGEYQCFARNKFGTALSNRIRLQVSKSPLWPKEN
 LDPVVVQEGAPLTLQCNPPPLPSPVIFWMSSMEPITQDKRVSQGHNGDLYFSNVMQLDMQTDYSCNAR
 FHFTHTIQQKNPFTLKVLTTRGVAERTPSFMYPQGTASSQMVLRGMDLLECIASGVPTPDIAWYKGGD
 LPSDKAKFENFNKALRITNVSEEDSGEYFCLASNKMGSI RHTISVRVKAAPYWLDEPKNLILAPGEDGRL
 VCRANGNPKPTVQWVNGEPLQSAPPNPNREVAGDTIIFRDTQISSRAVYQCNTSNEHGILLANAFVSVL
 DVPPRMLSPRNQLIRVILYNRRLDCPFFGSPITLRFKNGQGSNLDGGNYHYVYENGSLKIMIRKEDQ
 GIYTCVATNILGKAENQVRLEVDPTRIIYRMPEDQVARRGTTVQLECRVKHDPKSLKLTVSWLKDDEPLYI
 GNRMKKEDDSLITIFGVAERDQGSYTCVASTELDQDLAKAYLTVLGNPCSPWH

TRTRPLE – GFP Tag – V

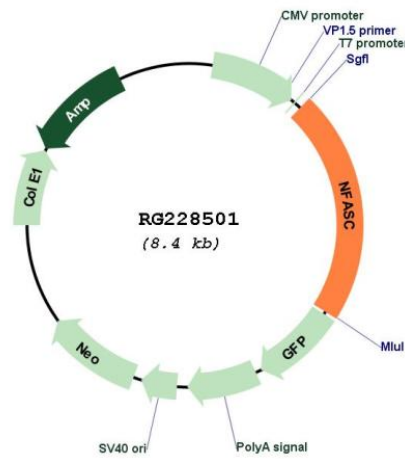
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001160333

ORF Size: 1839 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:	<ol style="list-style-type: none"> 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_001160333.2
RefSeq Size:	2509 bp
RefSeq ORF:	1842 bp
Locus ID:	23114
UniProt ID:	O94856
Cytogenetics:	1q32.1
Protein Families:	Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs)
Gene Summary:	<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⁺ (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>