

Product datasheet for RN214024

Nfasc (NM_053909) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nfasc (NM_053909) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Nfasc
Synonyms:	NF
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>RN214024 representing NM_053909 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGGCAGCAGGCGCCACCCTGGGTCCACGTAGCCCTCATCCTCTTCTCCTCAGCCTCGGAGGGG
CCATTGAGATTCGATGGATCTGACCCAACCCCAACGATCACCAAGCAGTCGGTGAAGGACCACATCGT
GGACCCCGAGATAACATCCTGATTGAATGTGAAGCTAAAGGGAACCCCGCCCCAGTTTCCACTGGACT
CGCAACAGCAGGTTCTTCAACATTGCCAAGGACCACGGGTGTCCATGAGGAGGAGGTCTGGGACCTTGG
TGATCGACTTCCGAGTGGTGGGCGGCCTGAGGAGTACGAAGGGGAGTACCAGTGCTTTGCCCGGAACAA
ATTCGGCACAGCTCTTAGCAACCGCATCCGCCTGCAGGTGCCAAATCTCCCTGTGGCCCAAGGAAAAAC
CTAGACCCCGTCGTGGTTCAAGAGGGTGGCCCTTAACCCTGCAGTGCAACCCCCACCTGGCCTCCCAT
CCCCCGTCATCTTCTGGATGAGCAGTCCATGGAGCCATCACCCAGGACAAGCGTGTCTCCAGGGTCA
CAACGGGACCTGTACTTCTCCAACGTCATGCTGCAGGACATGCAGACCGACTACAGTGAATGCACGC
TTCCACTTCACCCACACCATTGAGCAGAAGAATCCCTTACCCTCAAAGTCTCACCAACAACCCCTATA
ATGACTCGTCTTTAAGAAACCACCCTGACATATATAGTGCCCGAGGAGTTGCGGAAAGAACACCTAGCTT
CATGTATCCCCAGGGCAGTCAAGCAGTCAGATGGTACTGCGCGGCATGGACCTGCTGCTGGAGTGCATT
GCCTCTGGGGTCCCAACACCAGATATTGCATGGTACAAGAAAGGTGGGGACCTCCCATCTGACAAGGCCA
AGTTCGAGAATTTAACAAGGCTCTGCGCATACCAATGTCTCTGAAGAGGACTCTGGGAGTATTTCTG
CCTGGCCTCCAACAAGATGGGCAGCATCCGGCACACGATCTCGGTGAGAGTAAAGGCTGCCCCATACTGG
CTGGATGAGCCCAAGAATTGATCCTGGCTCCTGGTGAAGATGGGAGGCTGGTGTGTCGAGCCAATGGGA
ACCCGAAGCCGACCGTCCAGTGGTGGTGAATGGAGACCTTTGCAATCGGCACCACCAACCCCAACCG
TGAGGTGGCCGGAGACACTATCATCTCCGGGACACTCAGATCAGCAGCAGGGCAGTGTACCAGTGAAC
ACATCCAACGAACATGGTACCTGCTGGCCAATGCCTTCGTGAGGATATTAGATGTACCCCTCGGATGC
TGCTCCCCGGAACCAGCTCATCAGGGTATCCTTTACAACCGGACGCGACTGGACTGTCCGTTCTTTGG
GTCTCCCATCCAACTCCGATGGTTTAAAGATGGGCAAGGAAGCAACCTGGATGGTGGTAACTACCAC
GTCTACGAAAATGGCAGCCTGGAATCAAGATGATTGCAAGAGGACCAAGGCATCTACACCTGTGTGG



CCACCAACATCCTGGGAAAAGCTGAAAATCAAGTCCGCCTGGAGGTCAAAGACCCACCAGGATCTACAG
 GATGCCTGAAGACCAGGTGGCCAAGAGGGGCACCACAGTGCAGCTGGAGTGCCGTGTGAAGCATGACCCC
 TCCTTGAAACTCACAGTCTCCTGGCTGAAGGATGACGAGCCACTCTACATTGGAAACAGGATGAAAAAGG
 AAGATGACTCCCTGACCATCTTCGGAGTGGCAGAGCGGGACCAAGGCAGTTACACGTGCATGGCCAGCAC
 CGAGCTGGACCAGGACCTGGCAAAGGCCTACCTCACTGTTCTAGGGCGGCCAGACCAGCCAGGGACCTG
 GAGTCACTGACCTGGCGAAAAGGAGTGTGAGGCTGACCTGGATCCCGGGGATGATAACAACACCTCCA
 TCACAGACTACGTTGTCAGTTTGAAGAGACCAGTTCAGCCAGGAGTCTGGCATGACCACTCCAAGTT
 CCCAGGCAGTGTCAACTCAGCCGTCCTCCATCTGTCCCGTATGTCAACTATCAGTTCAGTCCGAGTCATCGCT
 GTCAACGAGGTTGGGAGCAGCCACCCAGCCTTCCATCCGAGCGGTACCGAACAAGCGGGCACCCTG
 AATCCAACCCAGTGATGTGAAGGGCGAAGGGACACGAAAAACAATATGGAGATCATATGGACGCCTAT
 GAATGCTACCTCCGCTTTGGCCCAACCTGCGCTACATTGTCAAGTGGCGACGGAGAGAAAACCCGAGAG
 ACTTGGAAACAATGTACCGTGTGGGCTCTCGCTATGTGGTGGGCAGACCCCTGTCTACGTACCCTATG
 AGATCCGAGTCCAGGCTGAAAATGACTTTGGGAAAGGCCGAGCCTGAAACCGTATTGGGTACTCGGG
 GGAAGATTATCCAGGGCTGCACCCACTGAAGTTAAAATCCGAGTCTGAACAGCACAGCCATCAGCCTT
 CAGTGGAAACCGCTCTACCTGACACGGTCCAGGGCCAGCTCAGAGAGTATCGAGCTTACTACTGGAGGG
 AAAGCAGTTTGCTGAAGAACCTGTGGGTGTCTCAGAAGAGACAGCAGGCCAGCTTCCCTGGCGACCGCC
 CCGGGGCGTGGTGGTCCGCTGTTCCTACAGTAACTACAAGCTGGAGATGGTTGTGGTCAATGGGAGA
 GGTGATGGGCCTCGAAGTGAAACCAAGGAATTCACCACCCGGAAGGAGTACCCAGTGCCCCAGGCGTT
 TCAGAGTCCGACAGCCCAACCTGGAGACCATCAACCTGGAATGGGATCACCCAGAGCACCCCAACGGGAT
 CCTGATTGGATACACGCTCAGATACGTGCCCTTAATGGAACCAACTGGGAAAGCAGATGGTGGAAAAC
 TTCTCTCCCAATCAGACCAAGTTCTCGGTGCAGAGAGCAGACCCCGTGTCCCGTTACCGCTTCTCCCTCA
 GTGCCAGGACGCAGGTGGGCTCTGGAGAAGCAGCCACGGAGGAGTCCCCAACACCTCCAATGAAGCTAC
 TCCAATGCAGCTTACACCAACAACCAGACTGACATCGCCACCCAGGGCTGGTTCATCGGGCTCATGTGT
 GCCATTGCCCTTCTGGTGTGATCCTGCTGATCGTCTGCTTCATCAAGAGGAGTGTGGCGCAAGTACC
 CAGTGCAGAAAAAGAAGGATGTCCCTTGGGCCCTGAAGACCCCAAGAAGAAGATGGTTCATTTGACTA
 CAGTGACGAGGACAACAAGCCCTGCAGGGCAGCCAGACATCTCTGGACGGCACCATCAAGCAGCAGGAG
 AGTGACGACAGCCTAGTGGACTACGGCAGGGTGGCGAGGGCCAGTTCAACGAAGATGGCTCCTTTATTG
 GCCAGTACACTGTCAGAAAGGACAAGGAGGAGACCGAGGGCAATGAGAGCTCAGAGGCCACATCTCCAGT
 CAATGCCATCTATTCCCTGGCC**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-Mlul
- ACCN:** NM_053909
- Insert Size:** 3525 bp
- OTI Disclaimer:** 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).
- 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: [NM_053909.2](#), [NP_446361.1](#)

RefSeq Size: 9627 bp

RefSeq ORF: 3525 bp

Locus ID: 116690

UniProt ID: [P97685](#)

Cytogenetics: 13q13

Gene Summary: 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]

Transcript Variant: This variant (3) has multiple differences in the coding region but maintains the reading frame, compared to variant 1. The resulting isoform (3) includes the third fibronectin type 3 (FNIII) repeat, lacks the mucin-like domain, and has several differences in the N-terminal and central regions, compared to isoform 1. **Sequence Note:** This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.