

Product datasheet for **RN217536**

Nfasc (NM_001160313) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nfasc (NM_001160313) 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: >RN217536 representing NM_001160313
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCCAGGCAGCAGGCGCCACCCTGGGTCCACGTAGCCCTCATCCTCTTCTCCTCAGCCTCGGAGGGG
CCATTGAGATCCGATGGATCTGACCCAACCCCAACGATCACCAAGCAGTCGGTGAAGGACCACATCGT
GGACCCCGAGATAACATCCTGATTGAATGTGAAGCTAAAGGGAACCCCGCCCCAGTTTCCACTGGACT
CGCAACAGCAGGTTCTTCAACATTGCCAAGGACCACGGGTGTCCATGAGGAGGAGGTCTGGGACCTTGG
TGATCGACTTCCGAGTGGTGGGCGGCCTGAGGAGTACGAAGGGGAGTACCAGTGCTTTGCCCGGAACAA
ATTCGGCACAGCTCTTAGCAACCGCATCCGCTGCAGGTGCCAAATCTCCCTGTGGCCCAAGGAAAAAC
CTAGACCCCGTCGTGGTTCAAGAGGGTGGCCCTTAACCTGCAGTGCAACCCCCACCTGGCCTCCCAT
CCCCGTGTCCTTCTGGATGAGCAGTCCATGGAGCCATCACCCAGGACAAGCGTGTCTCCAGGGTCA
CAACGGGACCTGACTTCTCCAACGTCATGCTGCAGGACATGCAGACCGACTACAGTGAATGCACGC
TTCCACTTCACCCACACCATTGAGCAGAAGAATCCCTTACCCTCAAAGTCTCACCAACAACCCCTATA
ATGACTCGTCTTTAAGAAACACCCTGACATATATAGTGCCCCGAGGAGTTGCGAAAGAACACCTAGCTT
CATGTATCCCCAGGGCAGTCAAGCAGTCAGATGGTACTGCGCGGCATGGACTGCTGCTGGAGTGCATT
GCCTCTGGGGTCCCAACACCAGATATTGCATGGTACAAGAAAGGTGGGGACCTCCCATCTGACAAGGCCA
AGTTCGAGAATTTAACAAGGCTCTGCGCATCACCAATGTCTCTGAAGAGGACTCTGGGAGTATTTCTG
CCTGGCCTCCAACAAGATGGGCAGCATCCGGCACACGATCTCGGTGAGAGTAAAGGCTGCCCCATACTGG
CTGGATGAGCCCAAGAATTGATCCTGGCTCCTGGTGAAGATGGGAGGCTGGTGTGTCGAGCCAATGGGA
ACCCGAAGCCGACCGTCCAGTGGTGGTGAATGGAGACCTTTGCAATCGGCACCACCAACCCCAACCG
TGAGGTGGCCGGAGACACTATCATCTCCGGGACACTCAGATCAGCAGCAGGGCAGTGTACCAGTGAAC
ACATCCAACGAACATGGTACCTGCTGGCAATGCCTTCGTGAGGATATTAGATGTACCCCTCGGATGC
TGCTCCCCGGAACAGCTCATCAGGGTATCCTTTACAACCGGACGCGACTGGACTGTCCGTTCTTTGG
GTCTCCCATCCAACTCCGATGGTTTAAAGATGGGCAAGGAAGCAACCTGGATGGTGGTAACTACCAC
GTCTACGAAAATGGCAGCCTGGAATCAAGATGATTGCAAGAGGACCAAGGCATCTACACCTGTGTGG



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CCACCAACATCCTGGGAAAAGCTGAAAATCAAGTCCGCCTGGAGGTCAAAGACCCACCAGGATCTACAG
 GATGCCTGAAGACCAGGTGGCCAAGAGGGGCACCACAGTGCAGCTGGAGTGCCGTGTGAAGCATGACCCC
 TCCTTGAAACTCACAGTCTCCTGGCTGAAGGATGACGAGCCACTACATTGGAAACAGGATGAAAAAGG
 AAGATGACTCCCTGACCATCTTCGGAGTGGCAGAGCGGGACCAAGGCAGTTACACGTGCATGGCCAGCAC
 CGAGCTGGACCAGGACCTGGCAAAGGCCTACCTCACTGTCTAGCTGATCAGGCCACTCCGACTAACCGT
 TTGGCTGCCCTGCCCAAAGGGCGGCCAGACCCAGGGACCTGGAGCTCACTGACCTGGCGGAAAGGA
 GTGTGAGGCTGACCTGGATCCCGGGGATGATAACAACAGTCCCATCACAGACTACGTTGTCCAGTTTGA
 AGAGGACCAGTTCAGCCAGGAGTCTGGCATGACCACTCCAAGTTCCAGGCAGTGTCAACTCAGCCGTC
 CTCATCTGTCCCGTATGTCAACTATCAGTTCAGTTCGAGTCACTCGCTGTCAACGAGGTTGGGAGCAGCCACC
 CCAGCCTTCCATCCGAGCGGTACCGAACAGCGGGGCACCCCTGAATCCAACCCAGTGTGTGAAGGG
 CGAAGGGACACGAAAAACAATATGGAGATCACATGGACGCTATGAATGCTACCTCCGCTTTGGCCCC
 AACCTGCGCTACATTGTCAAGTGGCGACGGAGAGAAACCCGAGAGACTTGAACAATGTCACCGTGTGGG
 GCTCTCGTATGTGGTGGGCAGACCCCTGTCTACGTACCCTATGAGATCCGAGTCCAGGCTGAAAATGA
 CTTTGGGAAAGGCCGGAGCCTGAAACCGTCATTGGGTA CTGGGGAAGATTATCCAGGGCTGCACCC
 ACTGAAGTAAAAATCCGAGTCTGAACAGCACAGCCATCAGCCTTCAGTGAACCGCGTCTACCCTGACA
 CGGTCCAGGGCCAGCTCAGAGAGTATCGAGCTTACTACTGGAGGGAAAGCAGTTTGTGCTGAAGAACCTGTG
 GGTGTCTCAGAAGAGACAGCAGGCCAGCTTCCCTGGCGACCGCCCCGGGGCGTGGTGGGTCGCCTGTTT
 CCCTACAGTAACTACAAGCTGGAGATGGTGTGGTCAATGGGAGAGGTGATGGGCCTCGAAGTGAACCA
 AGGAATTCACCACCCCGAAGGAGTACCAGTGCACCCAGGCGTTTCAGAGTCCGACAGCCCAACCTGGA
 GACCATCAACCTGGAATGGGATCACCCAGAGCACCCCAACGGGATCCTGATTGGATACACGCTCAGATAC
 GTGCCCTTAAATGGAACCAACTGGGAAAGCAGATGGTGGAAAATTCTCTCCAATCAGACCAAGTTCT
 CGGTGCAGAGAGCAGACCCCGTGTCCCGTTACCGCTTCTCCCTCAGTCCAGGACGCAGGTGGGCTCTGG
 AGAAGCAGCCACGGAGGAGTCCCAACACCTCCAATGAAGCTACTCCAAGTGCAGCTTACACCAACAAC
 CAGACTGACATCGCCACCCAGGGCTGGTTCATCGGGCTCATGTGTGCCATTGCCCTTCTGGTGTGATCC
 TGCTGATCGTCTGCTTCAAGAGGAGTCTGGCGGCAAGTACCAGTGCAGAGAAAAGAAGGATGTCCC
 CTTGGGCCTGAAGACCCCAAAGAAGAAGATGGTTCATTTGACTACAGTACGAGGACAACAAGCCCTG
 CAGGGCAGCCAGACATCTCTGGACGGCACCATCAAGCAGCAGGAGAGTGCAGCAGCCTAGTGGACTACG
 GCGAGGGTGGCGAGGGCCAGTTCAACGAAGATGGCTCCTTTATTGGCCAGTACACTGTCAGAAAGGACAA
 GGAGGAGACCGAGGGCAATGAGAGCTCAGAGGCCACATCTCCAGTCAATGCCATCTATCCCTGGCC**TGA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001160313
- Insert Size:** 3570 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).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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_001160313.1](#), [NP_001153785.1](#)

RefSeq Size: 9454 bp

RefSeq ORF: 3570 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 (2) has multiple differences in the coding region but maintains the reading frame, compared to variant 1. The promoter and 5' UTR for this variant have not been determined. The resulting isoform (2) includes the third fibronectin type 3 (FNIII) repeat, lacks the mucin-like domain, and has several differences near the N-terminus, compared to isoform 1. Isoform 2 is also known as NF155, as described by Davis et al. (PMID: 8947556).

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.