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Product datasheet for RN217514

Nfasc (NM_001160315) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nfasc (NM_001160315) 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:

>RN217514 representing NM_001160315
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGGCAGCAGGCGCCACCCTGGGTCCACGTAGCCCTCATCCTCTTCCTCCTCAGCCTCGGAGGGG
CCATTGAGATTCCGATGGATCTGACCCAACCCCCAACGATCACCAAGCAGTCGGTGAAGGACCACATCGT
GGACCCCCGAGATAACATCCTGATTGAATGTGAAGCTAAAGGGAACCCCGCCCCCAGTTTCCACTGGACT
CGCAACAGCAGGTTCTTCAACATTGCCAAGGACCCACGGGTGTCCATGAGGAGGAGGTCTGGGACCTTGG
TGATCGACTTCCGCAGTGGTGGGCGGCCTGAGGAGTACGAAGGGGAGTACCAGTGCTTTGCCCGGAACAA
ATTCGGCACAGCTCTTAGCAACCGCATCCGCCTGCAGGTGTCCAAATCTCCCCTGTGGCCCAAGGAAAAC
CTAGACCCCGTCGTGGTTCAAGAGGGTGCCCCCTTAACCCTGCAGTGCAACCCCCCACCTGGCCTCCCAT
CCCCCGTCATCTTCTGGATGAGCAGCTCCATGGAGCCCATCACCCAGGACAAGCGTGTCTCCCAGGGTCA
CAACGGGGACCTGTACTTCTCCAACGTCATGCTGCAGGACATGCAGACCGACTACAGCTGCAATGCACGC
TTCCACTTCACCCACACCATTCAGCAGAAGAATCCCTTCACCCTCAAAGTCCTCACCACCCGAGGAGTTG
CGGAAAGAACACCTAGCTTCATGTATCCCCAGGGCACGTCAAGCAGTCAGATGGTACTGCGCGGCATGGA
CCTGCTGCTGGAGTGCATTGCCTCTGGGGTCCCAACACCAGATATTGCATGGTACAAGAAAGGTGGGGAC
CTCCCATCTGACAAGGCCAAGTTCGAGAATTTTAACAAGGCTCTGCGCATCACCAATGTCTCTGAAGAGG
ACTCTGGGGAGTATTTCTGCCTGGCCTCCAACAAGATGGGCAGCATCCGGCACACGATCTCGGTGAGAGT
AAAGGCTGCCCCATACTGGCTGGATGAGCCCAAGAACTTGATCCTGGCTCCTGGTGAAGATGGGAGGCTG
GTGTGTCGAGCCAATGGGAACCCGAAGCCGACCGTCCAGTGGCTGGTGAATGGAGACCCTTTGCAATCGG
CACCACCCAACCCCAACCGTGAGGTGGCCGGAGACACTATCATCTTCCGGGACACTCAGATCAGCAGCAG
GGCAGTGTACCAGTGTAACACATCCAACGAACATGGCTACCTGCTGGCCAATGCCTTCGTCAGCGTATTA
GATGTACCCCCTCGGATGCTGTCTCCCCGGAACCAGCTCATCAGGGTGATCCTTTACAACCGGACGCGAC
TGGACTGTCCGTTCTTTGGGTCTCCCATTCCAACACTCCGATGGTTTAAGAATGGGCAAGGAAGCAACCT
GGATGGTGGTAACTACCACGTCTACGAAAATGGCAGCCTGGAAATCAAGATGATTCGCAAAGAGGACCAA
GGCATCTACACCTGTGTGGCCACCAACATCCTGGGAAAAGCTGAAAATCAAGTCCGCCTGGAGGTCAAAG

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ACCCCACCAGGATCTACAGGATGCCTGAAGACCAGGTGGCCAAGAGGGGCACCACAGTGCAGCTGGAGTG
CCGTGTGAAGCATGACCCCTCCTTGAAACTCACAGTCTCCTGGCTGAAGGATGACGAGCCACTCTACATT
GGAAACAGGATGAAAAAGGAAGATGACTCCCTGACCATCTTCGGAGTGGCAGAGCGGGACCAAGGCAGTT
ACACGTGCATGGCCAGCACCGAGCTGGACCAGGACCTGGCAAAGGCCTACCTCACTGTTCTAGGGCGGCC
AGACCGACCCAGGGACCTGGAGCTCACTGACCTGGCGGAAAGGAGTGTGAGGCTGACCTGGATCCCGGGG
GATGATAACAACAGTCCCATCACAGACTACGTTGTCCAGTTTGAAGAGGACCAGTTCCAGCCAGGAGTCT
GGCATGACCACTCCAAGTTCCCAGGCAGTGTCAACTCAGCCGTCCTCCATCTGTCCCCGTATGTCAACTA
TCAGTTCCGAGTCATCGCTGTCAACGAGGTTGGGAGCAGCCACCCCAGCCTTCCATCCGAGCGGTACCGA
ACAAGCGGGGCACCCCCTGAATCCAACCCCAGTGATGTGAAGGGCGAAGGGACACGAAAAAACAATATGG
AGATCACATGGACGCCTATGAATGCTACCTCCGCCTTTGGCCCCAACCTGCGCTACATTGTCAAGTGGCG
ACGGAGAGAAACCCGAGAGACTTGGAACAATGTCACCGTGTGGGGCTCTCGCTATGTGGTGGGGCAGACC
CCTGTCTACGTACCCTATGAGATCCGAGTCCAGGCTGAAAATGACTTTGGGAAAGGCCCGGAGCCTGAAA
CCGTCATTGGGTACTCGGGGGAAGATTATCCCAGGGCTGCACCCACTGAAGTTAAAATCCGAGTCCTGAA
CAGCACAGCCATCAGCCTTCAGTGGAACCGCGTCTACTCTGACACGGTCCAGGGCCAGCTCAGAGAGTAT
CGAGCTTACTACTGGAGGGAAAGCAGTTTGCTGAAGAACCTGTGGGTGTCTCAGAAGAGACAGCAGGCCA
GCTTCCCTGGCGACCGCCCCCGGGGCGTGGTGGGTCGCCTGTTCCCCTACAGTAACTACAAGCTGGAGAT
GGTTGTGGTCAATGGGAGAGGTGATGGGCCTCGAAGTGAAACCAAGGAATTCACCACCCCGGAAGGAGTA
CCCAGTGCCCCCAGGCGTTTCAGAGTCCGACAGCCCAACCTGGAGACCATCAACCTGGAATGGGATCACC
CAGAGCACCCCAACGGGATCCTGATTGGATACACGCTCAGATACGTGCCCTTTAATGGAACCAAACTGGG
AAAGCAGATGGTGGAAAACTTCTCTCCCAATCAGACCAAGTTCTCGGTGCAGAGAGCAGACCCCGTGTCC
CGTTACCGCTTCTCCCTCAGTGCCAGGACGCAGGTGGGCTCTGGAGAAGCAGCCACGGAGGAGTCCCCAA
CACCTCCAAATGAAGCTACTCCAACTGCAGCTTACACCAACAACCAGACTGACATCGCCACCCAGGGCTG
GTTCATCGGGCTCATGTGTGCCATTGCCCTTCTGGTGCTGATCCTGCTTATCGTCTGCTTCATCAAGAGG
AGTCGTGGCGGCAAGTACCCAGTGCGAGAAAAGAAGGATGTCCCCTTGGGCCCTGAAGACCCCAAAGAAG
AAGATGGTTCATTTGACTACAGTGACGAGGACAACAAGCCCCTGCAGGGCAGCCAGACATCTCTGGACGG
CACCATCAAGCAGCAGGAGAGTGACGACAGCCTAGTGGACTACGGCGAGGGTGGCGAGGGCCAGTTCAAC
GAAGATGGCTCCTTTATTGGCCAGTACACTGTCAGAAAGGACAAGGAGGAGACCGAGGGCAATGAGAGCT
CAGAGGCCACATCTCCAGTCAATGCCATCTATTCCCTGGCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI

ACCN: NM_001160315

Insert Size: 3474 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_001160315.1, NP_001153787.1

RefSeq Size: 9785 bp

RefSeq ORF: 3474 bp

Locus ID: 116690

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 (4) represents use of an alternate promoter and 5' UTR, and has multiple differences in the coding region but maintains the reading frame, compared to variant 1. The resulting isoform (4) includes the third fibronectin type 3 (FNIII) repeat, lacks the mucin-like domain, and lacks two segments in the N-terminal and central regions, compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.