

Product datasheet for **MC223903**

Nfasc (NM_001160316) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nfasc (NM_001160316) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nfasc
Synonyms:	AA387016; D430023G06Rik; mKIAA0756; NF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC223903 representing NM_001160316 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGGCAGCAGGCGCCACCCTGGGTCCACATAGCCCTCATCCTCTTCTCCTCAGCCTCGGAGGGG
CCATCGAGATCCGATGGACCTGACCCAACCCCAACTATCACCAAGCAGTCCGTGAAGGACCACATCGT
GGACCCTCGAGATAACATCCTGATTGAATGTGAAGCTAAAGGCAACCCCGCCCCAGTTTTCACTGGACT
CGCAACAGCAGATTCTTCAACATTGCCAAGGACCACGGGTGTCCATGAGGAGGAGATCTGGGACCTTGG
TGATCGACTTCCGAGTGGTGGCGGCCCTGAGGAATACGAAGGGGAGTACCAAGTCTTGGCCGGAACAA
ATTTGGCACTGCACTTAGCAACCGCATCCGCTGCAGGTGCCAATCTCCCTGTGGCCCAAGGAAAC
CTAGACCCCGTCGTGGTTCAAGAGGGTGCCTTGGACTACAGTGCAACCCCCACCCGGCTCCCGT
CCCCCGTCATCTTCTGGATGAGCAGCTCCATGGAGCCATCACCCAGGACAAGCGTGTCTCCAGGGTCA
CAACGGGGACCTGTACTTCTCCAACGTCATGCTGCAGGACATGCAGACCGACTACAGTGAACCGCGCGC
TTTCACTTCAACACACCATTCAGCAGAAGAACCCTTCAACCCTCAAGTCTCACCACAAACCCCTATA
ATGACTCGTCCTAAGAAACCACCTGACATATATAGTCCCGAGGAGTGCAGAAAGAACGCCAGCTT
CATGTATCCCCAGGGCACATCGAGCAGTCAGATGGTACAAGAAAGGTGGGGACCTCCCATCTAACAGGCCA
AGTTCGAGAACTTAAATAAGGCTCTGCGCATCACCAATGTCTCTGAAGAGGACTCTGGGGAGTATTCTG
CCTGGCCTCCAACAAGATGGGCAGCATCCGGCACACGATCTCGGTGAGAGTAAAGGCTGCTCCATACTGG
CTGGATGAGCCCAAGAACCTGATCCTGGCTCCTGGGGAAGATGGGAGGCTGGTATGCCGAGCCAATGGGA
ACCCGAAGCCGACCGTGCAGTGGATGGTGAATGGAGAGCCTTTACAATCGGCACCACCCAATCCCAACCG
TGAGGTAGCTGGAGACACTATCATCTTCCGGGATACTCAGATCAGCAGCAGGGCAGTGTACCAATGTAAT
ACATCCAATGAACATGGTACCTGCTGGCCAATGCCTTCGTCAGCGTGTAGATGTACCCCTCGGATGC
TGCTGCCCGCAACCAGCTCATCAGGGTATCCTTTATAACCGGACACGGCTGGACTGTCCGTTCTTTGG
GTCTCCATCCCAACACTCCGATGGTTAAGAATGGGCAAGGAAGCAACCTGGATGGCGGTAACCTACCAC



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GTCTACGAAAACGGCAGTCTAGAAATCAAGATGATTTCGCAAAGAGGACCAAGGCATCTACACCTGTGTGG
 CCACCAACATCCTGGGCAAAGCCGAAAATCAAGTCCGCCTGGAGGTCAAAGACCCACCAGGATCTACAG
 GATGCCCGAGGACCAGGTGGCCAAGAGGGGCACCACGGTGCAGCTGGAGTGCCCGGTGAAACATGACCCC
 TCCTTGAAGCTCACAGTCTCCTGGCTGAAGGACGATGAGCCACTACATTGGAACAGGATGAAGAAGG
 AAGATGACTCCCTGACGATCTTCGGAGTGGCAGAGCGGGACCAGGGCAGTTACACGTGTATGGCCAGCAC
 CGAGCTGGACCAGGACCTGGCAAAGGCCTACCTCACTGTTCTAGCTGATCAGGCCACTCCAACCTAACCGT
 TTGGCTGCCCTACCCAAAGGGCGACCAGACCCAGGGACCTGGAGCTCACTGACCTGGCTGAGAGGA
 GTGTGAGGCTGACCTGGATCCCAGGGGATGACAACAACAGCCCTATCACAGACTACGTCGTTTCAGTTTGA
 AGAGGACCAGTTCCAACAGGGGTGTGGCATGACCACTCCAGGTTCCAGGCAGCGTCAACTCAGCCGTC
 CTCATCTGTCCCATATGTCAACTACCAATTCAGAGTCATCGCTGTCAACGAGGTTGGGAGCAGCCACC
 CCAGCCTTCCATCCGAGCGGTACCGAACCAAGTGGGGCACCCCTGAATCTAATCCCAGTGATGTGAAGGG
 CGAAGGGACAAGAAAGAACAATATGGAGATCACGTGGACGCTATGAATGCTACCTCTGCCTTTGGCCCC
 AACCTACGCTACATTGTCAAGTGGCGACGGAGAGACCCGAGAGACTTGAACAATGTCACAGTGTGGG
 GCTCTCGTACGTGGTGGGCAGACGCCTGTCTACGTTCCCTATGAGATCCGAGTCCAGGCTGAAAATGA
 CTTTGGGAAAGGCCCGAGCCTGACACCATCATTGGGACTCCGGAGAAGATTATCCAGGGCTGCGCCC
 ACTGAAGTTAAAAATCCGAGTCCGAAACAGCACAGCCATCAGCCTTCAGTGGAAACCAGTCTACTCTGACA
 CGGTCCAGGGCCAGCTCAGAGAGTATCGAGCTTACTACTGGAGGGAAAGCAGTTTGTGGAAGAACCTGTG
 GGTGTCTCAGAAGAGACAGCAGGCCAGCTTCCCTGGTGACCGTCCCCGGGGCGTGGTGGCCCGCCTGTT
 CCCTACAGTAACTACAAGCTGGAGATGGTGGTGGTCAATGGGAGAGGTGACGGGCCTCGAAGTGAACCA
 AGGAATTCACCACCCAGAAGGAGTACCAGTCCCCCAGGCGGTTCCAGAGTCCGACAGCCCAACCTGGA
 GACCATCAACCTGGAGTGGGACCACCCAGAGCACCCCAACGGAATCCTGATTGGATACATCCTCAGATAC
 GTGCCCTTTAATGGAACCAAACTGGGAAAGCAGATGGTGGAAAACCTCTCTCCAATCAGACCAAGTTCT
 CTGTGCAGAGAGCAGACCAGTGTGCGGTTACCGCTTCTCCCTCAGTGCCAGGACACAGGTGGGCTCTGG
 AGAAGCAGCCACAGAGGAGTCCCCAGCACCTCCAATGAAGCTACTCCAAGTGCAGCTTACACCAATAAC
 CAGGCAGACATCGCCACCCAGGGCTGGTTCATCGGGCTCATGTGTGCCATTGCCCTTCTGGTGTGATCC
 TTCTCATCGTCTGCTTCAAGAGGAGTCCAGGTGGCAAGTACCAGTCCGGGAAAAGAAGGATGTCCC
 CTTGGGCTCTGAAGACCCCAAAGAAGAAGATGGCTCATTTGACTACAGTGTGAGGACAACAAGCCCTG
 CAGGGCAGCCAGACATCTCTGGATGGCACCATCAAGCAGCAGGAGAGCGATGACAGCCTGGTGGACTATG
 GCGAAGGCGGCGAGGGCCAGTTCAATGAAGATGGCTCCTTTATTGGCCAGTACACTGTCAAAAAGGACAA
 GGAGGAAACGGAGGGCAATGAGAGCTCAGAGGCCACATCACCAGTCAATGCCATCTATTCCTTGCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: NM_001160316
 Insert Size: 3570 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<u>NM_001160316.1, NP_001153788.1</u>
RefSeq Size:	9406 bp
RefSeq ORF:	3570 bp
Locus ID:	269116
Cytogenetics:	1 57.42 cM

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: 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.