

Product datasheet for **MG220931**

Nfasc (NM_182716) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nfasc (NM_182716) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nfasc
Synonyms:	AA387016; D430023G06Rik; mKIAA0756; NF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG220931 representing NM_182716 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCAGGCAGCAGGCGCCACCCTGGGTCCACATAGCCCTCATCCTCTTCTCCTCAGCCTCGGAGGGG
CCATCGAGATCCGATGGACCCAAGCATTGAGCTGACCAACCCCAACTATCACCAAGCAGTC
CGTGAAGGACCACATCGTGGACCCTCGAGATAACATCCTGATTGAATGTGAAGCTAAAGGCAACCCCGCC
CCCAGTTTTCACTGGACTCGCAACAGCAGATTCTCAACATTGCCAAGGACCCACGGGTGTCCATGAGGA
GGAGATCTGGGACCTTGGTATCGACTCCGCAGTGGTGGCGGCCTGAGGAATACGAAGGGGAGTACCA
GTGCTTTGCCCGGAACAATTTGGCACTGCACTTAGCAACCGCATCCGCCTGCAGGTGTCCAATCTCCC
CTGTGGCCCAAGGAAAACCTAGACCCCGTCTGTTCAAGAGGGTGCCCCCTTGACACTACAGTGAACCC
CCCCACCCGGCCTCCCGTCCCCGTCATCTTCTGGATGAGCAGCTCCATGGAGCCATCACCCAGGACAA
GCGTGTCTCCAGGGTCAACAACGGGACCTGTACTTCTCCAACGTGATGCTGCAGGACATGCAGACCGAC
TACAGTGCAACGCGCGCTTCACTTCAACACACCATTCAGCAGAAGAACCCTTACCCTCAAGGTCC
TCACCACCCGAGGAGTTGCAGAAAGAAGCCAGCTTTCATGTATCCCAAGGCACATCGAGCAGTCAGAT
GGTTCTCCGTGGCATGGACCTGCTGCTGGAATGCATTGCCTCTGGCGTCCCAACACCAGACATTGCATGG
TACAAGAAAGTGGGACCTCCCATCTAACAAGGCAAGTTCGAGAAGTTAATAAGGCTCTGCGCATCA
CCAATGTCTCTGAAGAGACTCTGGGAGTATTTCTGCCTGGCCTCCAACAAGATGGGCAGCATCCGGCA
CAGGATCTCGGTGAGAGTAAAGGCTGCTCCATACTGGCTGGATGAGCCCAAGAACCTGATCCTGGCTCCT
GGGGAAGATGGGAGGCTGGTATGCCGAGCCAATGGGAACCCGAAGCCGACCGTGCAGTGGATGGTGAATG
GAGAGCCTTTACAATCGGCACCACCAATCCCAACCGTGAGGTAGCTGGAGACACTATCATCTTCCGGGA
TACTCAGATCAGCAGCAGGGCAGTGTACCAATGTAATACATCCAATGAACATGGCTACCTGCTGGCCAAT
GCCTTCGTCAGCGTGTAGATGTACCCCTCGGATGCTGTCTGCCGCAACCAGCTCATCAGGGTGTATCC
TTTATAACCGGACACGGCTGGACTGTCCGTTCTTTGGTCTCCCATCCCAACACTCCGATGGTTTAAAGAA
TGGCAAGGAAGCAACCTGGATGGCGGTAACCTACCACGTCTACGAAAACGGCAGTCTAGAATCAAGATG



[View online »](#)

ATTCGCAAAGAGGACCAAGGCATCTACACCTGTGTGGCCACCAACATCCTGGGCAAAGCCGAAAATCAAG
TCCGCCTGGAGGTCAAAGACCCACCAGGATCTACAGGATGCCCGAGGACCAGGTGGCCAAGAGGGGCAC
CACGGTGCAGCTGGAGTGCCCGGTGAAACATGACCCTCCTTGAAGCTCACAGTCTCCTGGCTGAAGGAC
GATGAGCCACTTACATTGGAACAGGATGAAGAAGGAAGATGACTCCCTGACGATCTTCGGAGTGGCAG
AGCGGGACCAGGGCAGTTACACGTGTATGGCCAGCACCAGCTGGACCAGGACCTGGCAAAGGCCTACCT
CACTGTTCTAGCTGATCAGGCCACTCCAACCTAACCGTTTGGCTGCCCTACCCAAAGGGCCGACCAGACCGA
CCCAGGGACCTGGAGCTACTGACCTGGCTGAGAGGAGTGTGAGGCTGACCTGGATCCCAGGGGATGACA
ACAACAGCCCTATCACAGACTACGTTCAGTTTGAAGAGGACCAGTTCCAACAGGGGTGGCATGA
CCTCCAGGTTCCAGGCAGCGTCAACTCAGCCGTCCTCCATCTGTCCCATATGTCAACTACCAATTC
AGAGTCATCGCTGTAACGAGGTTGGGAGCAGCCACCCAGCCTTCCATCCGAGCGGTACCGAACCAAGT
GGGCACCCCTGAATCTAATCCCAGTGTGTGAAGGGCAAGGGACAAGAAAGAACAATATGGAGATCAC
GTGGACGCTATGAATGTACCTCTGCCTTGGCCCAACCTACGCTACATTGTCAAGTGGCGACGGAGA
GAGACCCGAGAGACTTGGAAACAATGTACAGTGTGGGCTCTCGTACGTGGTGGGCAGACGCTGTCT
ACGTTCCCTATGAGATCCGAGTCCAGGCTGAAAATGACTTGGGAAAGGCCCGAGCCTGACACCATCAT
TGGGTACTCCGGAGAAGATTTACCCAGTCCCCAGGCGGTTGAGTCCGACAGCCCAACTGGAGACC
ATCAACCTGGAGTGGGACCACCCAGAGCACCCAACGGAATCCTGATTGGATACATCCTCAGATACGTGC
CCTTAAATGGAACAAAAGTGGGAAAGCAGATGGTGGAAAATCTCTCCCAATCAGACCAAGTTCTCTGT
GCAGAGAGCAGACCCAGTGTGCGGTTACCGCTTCTCCCTCAGTGCAGGACACAGGTGGGCTCTGGAGAA
GCAGCCACAGAGGAGTCCCAGCACCTCCAATGAAGCTACTCCAAGTGCAGCTCCTCCCAGTTGCCCC
CGACTACTGTGGGTACCACAGGCCTTGTGAGCAGTACTGATGCTACTGCCCTTGTGCCACCAGTGAAGC
CACAAAGTTCATCATTCCAACCGTCGTACCTACCACCGTCGCCACCACCATTGCCACAAGTACTACA
ACCACTGCCGCCACCACCACCACCACCACCACCAGGAGAGCCCTCCCACTACCACTGCTGGGACTAAGATTC
ACGAAACCGCCCCGACGAGCAGTCCATTTGGAACGTACAGTGTCTCCCAACAGTAAATGGGCCAACAT
CACCTGGAAGCACAATTCAGGCCTGGAAGTACTTTGTGGTTGAGTACATCGACAGCAACCATACGAAA
AAAAGTGTCCCTGTTAAGGCCAGGCCAGCCTATACAGTGTGACAGACCTCTTCCCGGGATGACGTACA
CGTTGCGGGTGTATTCGCGGACAACGAGGGCATCAGCAGTACCGTCATCACCTTTATGACCAGTACAGC
TTACACCAATAACCAGGCAGACATCGCCACCCAGGGCTGGTTCATCGGGCTCATGTGTGCCATTGCCCTT
CTGGTGTGATCCTTCTCATCGTCTGCTTCAAGAGGAGTGGAGTGGCAAGTACCCAGTGGGGAAA
AGAAGGATGTCCCTTGGGTCTGAAGACCCCAAGAAGAAGATGGCTCATTGACTACAGTGTGAGGA
CAACAAGCCCTGCAGGGCAGCCAGACATCTTGATGGCACCATCAAGCAGCAGGAGAGCGATGACAGC
CTGGTGGACTATGGCGAAGGCGGCGAGGGCCAGTTCAATGAAGATGGCTCCTTTATTGGCCAGTACTGT
TCAAAAAGGACAAGGAGGAAACGGAGGGCAATGAGAGCTCAGAGGCCACATCACCAGTCAATGCCATCTA
TTCCTTGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG220931 representing NM_182716
 Red=Cloning site Green=Tags(s)

```
MARQQAPPWVHIALILFLLSLGGAIEIPMDPSIQNELTQPPTITKQSVKDHIVDPRDNILIECEAKGNPA
PSFHWTRNSRFFNIAKDRVSMRRRSGTLVIDFRSGGRP EYEGEYQCFARNKFGTALS NRIRLQVSKSP
LWPKENLDPVVVQEGAPLTLQCNP PGLPSPVIFWSSSMEPITQDKRVSQGHNGDLYFSNVMLQDMQTD
YSCNARHFHTHTIQK NPF TLKVL TTRGVAERTPSFMYPQGTSSSQMVL RGM D L L L E C I A S G V P T P D I A W
YKKGDLPSNKAKFENFKALRITNVSEEDSGEYFCLASNKMG SIRHTISVRVKAAPYWLDEPKNLILAP
GEDGRLVCRANGNPKPTVQWMVNGEPLQSAPPNPNREVAGDTIIFRDTQISSRAVYQCNTSNEHG YLLAN
AFVSVL D V P P R M L S A R N Q L I R V I L Y N R T R L D C P F F G S P I P T L R W F K N G Q S N L D G G N Y H V Y E N G S L E I K M
I R K E D Q G I Y T C V A T N I L G K A E N Q V R L E V K D P T R I Y R M P E D Q V A K R G T T V Q L E C R V K H D P S L K L T V S W L K D
D E P L Y I G N R M K K E D D S L T I F G V A E R D Q G S Y T C M A S T E L D Q D L A K A Y L T V L A D Q A T P T N R L A A L P K G R P D R
P R D L E L T D L A E R S V R L T W I P G D D N N S P I T D Y V V Q F E E D Q F Q P G V W H D S R F P G S V N S A V L H L S P Y V N Y Q F
R V I A V N E V G S S H P S L P S E R Y R T S G A P P E S N P S D V K G E G T R K N N M E I T W T P M N A T S A F G P N L R Y I V K W R R R
E T R E T W N N V T V W G S R Y V V G Q T P V Y V P Y E I R V Q A E N D F G K G P E P D T I I G Y S G E D L P S A P R R F R V R Q P N L E T
I N L E W D H P E H P N G I L I G Y I L R Y V P F N G T L G K Q M V E N F S P N Q T K F S V Q R A D P V S R Y R F S L S A R T Q V G S G E
A A T E E S P A P P N E A T P T A A P P T L P P T T V G T T G L V S S T D A T A L A A T S E A T T V P I I P T V V P T T V A T T I A T T T T
T T A A T T T T T T T E S P T T T A G T K I H E T A P D E Q S I W N V T V L P N S K W A N I T W K H N F R P G T D F V V E Y I D S N H T K
K T V P V K A Q A Q I Q L T D L F P G M T Y T L R V Y S R D N E G I S S T V I T F M T S T A Y T N N Q A D I A T Q G W F I G L M C A I A L
L V L I L L I V C F I K R S R G G K Y P V R E K K D V L P G P E D P K E E D G S F D Y S D E D N K P L Q G S Q T S L D G T I K Q Q E S D D S
L V D Y G E G G E G Q F N E D G S F I G Q Y T V K K D K E E T E G N E S S E A T S P V N A I Y S L A
```

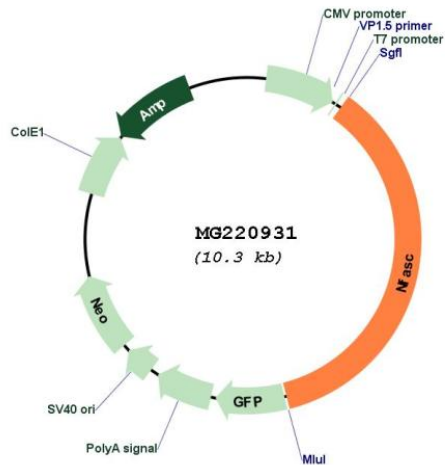
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_182716

ORF Size: 3720 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:**
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_182716.4](#), [NP_874385.1](#)

RefSeq Size: 9795 bp

RefSeq ORF: 3723 bp

Locus ID: 269116

UniProt ID: [Q810U3](#)

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]