

## Product datasheet for **RR217514**

### Nfasc (NM\_001160315) Rat Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Nfasc (NM\_001160315) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Nfasc  
**Synonyms:** NF  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR217514 representing NM\_001160315  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCAGGCAGCAGGCGCCACCCTGGGTCCACGTAGCCCTCATCCTCTTCTCCTCAGCCTCGGAGGGG  
CCATTGAGATCCGATGGATCTGACCCAACCCCAACGATCACCAAGCAGTCGGTGAAGGACCACATCGT  
GGACCCCGAGATAACATCCTGATTGAATGTGAAGCTAAAGGGAACCCCGCCCCAGTTTCCACTGGACT  
CGCAACAGCAGGTTCTTCAACATTGCCAAGGACCCACGGGTGTCCATGAGGAGGAGGTCTGGACCTTGG  
TGATCGACTTCCGAGTGGTGGCGGCCTGAGGAGTACGAAGGGGAGTACCAGTGCTTTGCCCGGAACAA  
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CTAGACCCCGTCTGGTCAAGAGGGTGGCCCTTAACCTGCAGTGCAACCCCCACCTGGCCTCCCAT  
CCCCGTGATCTTCTGGATGAGCAGTCCATGGAGCCATCACCCAGGACAAGCGTGTCTCCAGGGTCA  
CAACGGGACCTGTACTTCTCAACGTCATGCTGCAGGACATGCAGACCGACTACAGTGAATGCACGC  
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CCTGTGCTGGAGTGCATTGCCTCTGGGTCCCAACACCAGATATTGCATGGTACAAGAAGGTGGGGAC  
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ACCCACACAGGATCTACAGGATGCCTGAAGACCAGGTGGCCAAGAGGGGCACCACAGTGCAGCTGGAGTG  
CCGTGTGAAGCATGACCCCTCCTTGAAACTCACAGTCTCCTGGCTGAAGGATGACGAGCCACTCTACATT  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR217514 representing NM\_001160315  
 Red=Cloning site Green=Tags(s)

MARQQAPPVHVALILFLLSLGGAIEIPMDLTQPPTITKQSVKDHI V D P R D N I L I E C E A K G N P A P S F H W T  
 R N S R F F N I A K D P R V S M R R R S G T L V I D F R S G R P E E Y E G E Y Q C F A R N K F G T A L S N R I R L Q V S K S P L W P K E N  
 L D P V V V Q E G A P L T L Q C N P P P G L P S P V I F W M S S S M E P I T Q D K R V S Q G H N G D L Y F S N V M L Q D M Q T D Y S C N A R  
 F H F T H T I Q Q K N P F T L K V L T T R G V A E R T P S F M Y P Q G T S S S Q M V L R G M D L L L E C I A S G V P T P D I A W Y K K G G D  
 L P S D K A K F E N F N K A L R I T N V S E E D S G E Y F C L A S N K M G S I R H T I S V R V K A A P Y W L D E P K N L I L A P G E D G R L  
 V C R A N G N P K P T V Q W L V N G D P L Q S A P P N P N R E V A G D T I I F R D T Q I S S R A V Y Q C N T S N E H G Y L L A N A F V S V L  
 D V P P R M L S P 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 G 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 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 H S K 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 E T V I G Y S G E D Y P R A A P T E V K I R V L N S T A I S L Q W N R V Y S D T V Q G Q L R E Y  
 R A Y Y W R E S S L L K N L W V S Q K R Q Q A S F P G D R P R G V G R L F P Y S N Y K L E M V V N G R G D G P R S E T K E F T T P E G V  
 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 T L R Y V P F N G T K 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 T P N E A T P T A A Y T N N Q T 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 P L 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 R 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

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

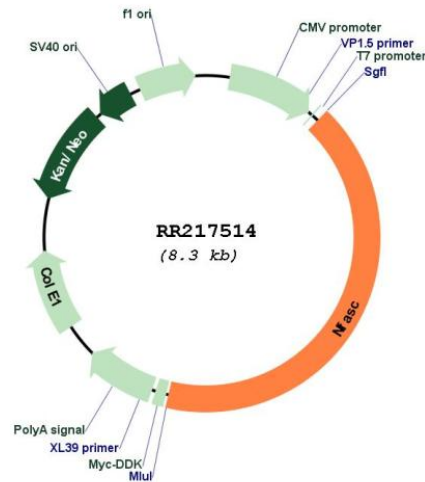
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



## Plasmid Map:



ACCN: NM\_001160315

ORF Size: 3471 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\\_001160315.1](#), [NP\\_001153787.1](#)

RefSeq Size: 9785 bp

RefSeq ORF: 3474 bp

Locus ID: 116690

Cytogenetics: 13q13

MW: 130.3 kDa

**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<sup>+</sup> (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]