

## Product datasheet for **SC304227**

### Neurofascin (NFASC) (NM\_015090) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neurofascin (NFASC) (NM_015090) Human Untagged Clone
Tag:	Tag Free
Symbol:	NFASC
Synonyms:	NEDCPMD; NF; NRCAML
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_015090, the custom clone sequence may differ by one or more nucleotides

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ATGCCAGGCAGCCACCGCCGCCCTGGGTCCATGCAGCCTTCTCCTCTGCCTCCTCAGT
CTTGGCGGAGCCATCGAAATTCCTATGGATCTGACGCAGCCGCCAACCATCACCAAGCAG
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GCCCTGTCCAATAGGATCCGCTGCAGGTGTCTAAATCTCCTCTGTGGCCCAAGGAAAAC
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GATAAGGCCAAGTTTGAACTTTAATAAGGCCCTGCGTATCACAAATGTCTCTGAGGAA
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GGAGACACCATCATCTTCCGGGACACCCAGATCAGCAGCAGGGCTGTGTACCAGTGAAC
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GACCAGGTGGCCAGAAGGGGCACCACGGTGCAGCTGGAGTGTGCGGTGAAGCAGACCCC
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ATGAAGAAGGAAGACGACTCCCTGACCATCTTTGGGGTGGCAGAGCGGGACCAGGGCAGT  
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TACACTCTCAAATATGTGGCCTTTAACGGGACCAAAGTAGGAAAGCAGATAGTGGAAAAC  
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TTTACCCTCAGCGCCAGGACGCAGGTGGCTCTGGGGAAGCCGTACAGAGGAGTACCA  
GCACCCCGAATGAAGCTTACCAACAACCAAGCGGACATCGCCACCCAGGGCTGGTTC  
ATTGGGCTTATGTGGCCATCGCCCTCCTGGTGCTGATCCTGCTCATCGTCTGTTTCATC  
AAGAGGAGTGCAGCGCGCAAGTACCCAGTACGAGAAAAGAAGGATGTTCCCTTGCCCT  
GAAGACCCCAAGGAAGAGGATGGCTCATTTGACTATAGTGATGAGGACAACAAGCCCTG  
CAGGGCAGTCAGACATCTCTGGACGGCACCATCAAGCAGCAGGAGAGTGACGACAGCCTG  
GTGGACTATGGCGAGGGTGGCGAGGGTCAGTTCAATGAAGACGGCTCCTTCATCGGCCAG  
TACACGGTCAAAAAGGACAAGGAGGAAACAGAGGGCAACGAAAGCTCAGAGGCCACGTCA  
CCTGTCAATGCTATCTACTCTCTGGCCTAA

- Restriction Sites:** Please inquire
- ACCN:** NM\_015090
- 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:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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\\_015090.1](#), [NP\\_055905.1](#)

**RefSeq Size:** 9841 bp

**RefSeq ORF:** 3522 bp

**Locus ID:** 23114

**UniProt ID:** [O94856](#)

**Cytogenetics:** 1q32.1

**Protein Families:** Transmembrane

**Protein Pathways:** Cell adhesion molecules (CAMs)

**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]

**Transcript Variant:** This variant (4) 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 has several differences in the N-terminal and central regions, compared to isoform 1. **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.