

Active Recombinant Rat Neurofascin

Cat. No. Nfasc-14R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Neurofascin, expressed in Mouse myeloma cell line, NS0 derived.
Species	Rat
Source	Mammalian Cells
Description	<p>Neurofascin 155 (NF155) is a type I transmembrane glycoprotein that belongs to the L1CAM family of cell adhesion proteins.^{1,2} The rat NF155 cDNA encodes a 1240 amino acid (aa) precursor that contains a 24 aa signal sequence, a 1086 aa extracellular domain (ECD), a 21 aa transmembrane segment, and a 109 aa cytoplasmic domain. The ECD consists of six Ig-like domains and four fibronectin type III repeats, the second of which has an RGD motif. A splice variant of Neurofascin, NF186, lacks the RGD-containing fibronectin type III domain but instead has a mucin-like domain and an additional non-RGD fibronectin type III domain.³ Within shared regions of the ECD, rat NF155 shares 45% and 39% aa sequence identity with rat Nr-CAM and L1CAM, respectively, and 98% aa sequence identity with human and mouse NF155. NF155 is transiently expressed by oligodendrocytes at the onset of axon myelination, whereas NF186 is neuronally expressed in nodes of Ranvier.</p>
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measured by its ability to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons. Optimal neurite outgrowth was observed when neurons were plated

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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	on 96 well culture plates that had been precoated with 50 µL/well of the rrNeurofascin solution at 1015 µg/mL.
Molecular Mass	Predicted Molecular Mass: 114.7 kDa.SDS PAGE: 135140 kDa, reducing conditions.
Endotoxin	<1.0 eu per 1 µg of the protein by the lal</1.0
Purity	>97%, by SDSPAGE under reducing conditions and visualized by silver stain.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	12 months from date of receipt, 20 to 70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, 20 to 70 centigrade under sterile conditions after reconstitution.
Reconstitution	Reconstitute at 100 µg/mL in sterile PBS.
Warning	Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	Nfasc neurofascin [<i>Rattus norvegicus</i>]
Official Symbol	Nfasc
Synonyms	NFASC; neurofascin; NF;
Gene ID	116690
mRNA Refseq	NM_001160313

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Protein Refseq	NP_001153785
UniProt ID	P97685
Chromosome Location	13q13
Pathway	Axon guidance, organism-specific biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Developmental Biology, organism-specific biosystem; Interaction between L1 and Ankyrins, organism-specific biosystem; L1CAM interactions, organism-specific biosystem; Neurofascin interactions, organism-specific biosystem;

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