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	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 oligodendr centigradeytes at the onset of axon myelination, whereas NF186 is neuronally expressed in nodes of Ranvier.
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
45-1 Ramsey Road, Shirley, NY 11967, USA

	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 [Rattus norvegicus]
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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