Human Neurofascin
Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1018843

Catalog Number: FAB8208S

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Neurofascin in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 1018843
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human Neurofascin Ile25-Trp1039 Accession # NP_055905
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10^6 cells	U87-MG human cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Neurofascin, a type I transmembrane glycoprotein, is a member of the L1 family of cell adhesion molecules (CAMs) (1-4). L1CAM family members are composed of an extracellular domain (ECD) that contains six immunoglobulin (Ig)-like domains and multiple fibronectin type III repeats, followed by transmembrane and cytoplasmic domains (2, 4, 5). Multiple isoforms of Neurofascin, including NF155, NF166, NF180, and NF186, can be generated by alternative splicing with a predicted range of approximately 70 kDa to 150 kDa (4). These isoforms differ in the combination of fibronectin type III repeats, as well as in the presence of a proline-, alanine-, and threonine-rich segment (PAT domain) located just after the fourth fibronectin type III repeat (4). This recombinant human Neurofascin protein corresponds to rat isoform NF155 and shares 96% amino acid sequence identity with comparable regions of rat and mouse Neurofascin. In rats, NF155 is transiently expressed by oligodendrocytes and Schwann cells during axon myelination (6, 7). NF155 clusters in paranodal regions of oligodendroglia and binds to the Caspr-Contactin complex located on the adjacent axon to form and stabilize paranodal axoglial junctions (8-11). It has been suggested that the ECD of NF155 must be cleaved from oligodendroglia membranes to form and/or stabilize the paranodal structure (12). NF155 has also been shown to promote neuronal adhesion and neurite outgrowth in rats and chickens (12-14). Alterations in NF155 expression have been associated with multiple sclerosis (15).

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