

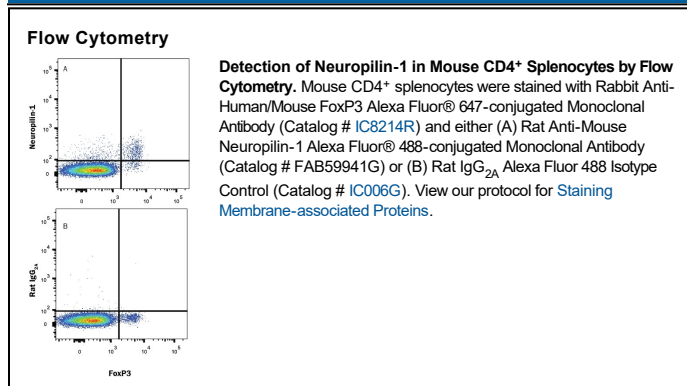
DESCRIPTION	
Species Reactivity	Mouse
Specificity	Detects mouse Neuropilin-1 in direct ELISAs.
Source	Monoclonal Rat IgG _{2A} Clone # 761704
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Neuropilin-1 Phe21-Pro856 Accession # P97333
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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	0.5 µg/10 ⁶ cells	See Below

DATA



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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Neuropilin-1 (Nrp-1, previously Neuropilin; also CD304) is a 130-140 kDa type I transmembrane (TM) glycoprotein that regulates axon guidance and angiogenesis. The full-length 923 amino acid (aa) mouse Nrp-1 contains a 835 aa extracellular domain (ECD) that shares 98% aa identity with rat and 93% aa identity with human, equine, bovine and canine Nrp-1. The ECD contains two N-terminal CUB domains (termed a1a2), two domains with homology to coagulation factors V and VIII (b1b2) and a MAM (meprin) domain (c). The sema domains of Class III secreted semaphorins such as Sema3A bind Nrp-1 a1a2. Heparin, the heparin-binding forms of VEGF (VEGF₁₆₅, VEGF-B and VEGF-E), PlGF (PlGF2), and the C-terminus of Sema3 bind the b1b2 region. Nrp-1 and Nrp-2 share 48% aa identity within the ECD and can form homo- and hetero-oligomers via interaction of their MAM domains. Neuropilins show partially overlapping expression in neuronal and endothelial cells during development. Both neuropilins act as co-receptors with multiple molecules, which for Nrp-1 includes Sema3A through Sema3F, Plexin A1 through A4, Plexin B1 and D1. It also interacts with Robo1 and as noted, Nrp-2, as a heterodimer, which binds Sema3C. Finally, it has recently been found to bind miRNA that are complexed to AGO2 in the extracellular space. Both are co-receptors with VEGF R2 (also called KDR or Flk-1) for VEGF₁₆₅ binding. Sema3A signaling can be blocked by VEGF₁₆₅, which has higher affinity for Npn-1. Nrp-1 is preferentially expressed in developing or remodeling arteries. Nrp-1 is also expressed on multiple cell types, including keratinocytes, Nrp-1⁺ T cells, Schwann cells, macrophages, vascular and lymphatic endothelium, breast duct epithelium, hepatic stellate cells, and neural crest cells that give rise to both sensory and autonomic ganglia.

Mouse Neuropilin-1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Rat IgG_{2A} Clone # 761704

Catalog Number: FAB59941G
100 µg

PRODUCT SPECIFIC NOTICES

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