

DESCRIPTION

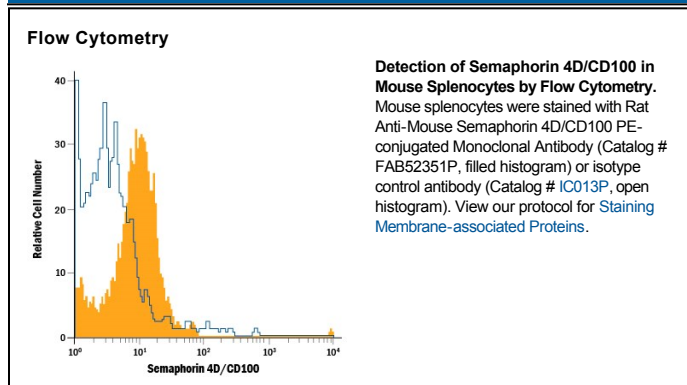
Species Reactivity	Mouse
Specificity	Detects mouse Semaphorin 4D/CD100 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Semaphorin 3A, 3B, 3C, 3D, 3E, 3F, 4A, 4B, 4C, 4D, 4G, 5A, 5B, 6A, 6B, 6C, 6D, or 7A is observed.
Source	Monoclonal Rat IgG _{2B} Clone # 547412
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Semaphorin 4D/CD100 Phe24-Thr657 Accession # NP_038688
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 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	10 μ L/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. ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Semaphorin 4D (Sema4D) also known as CD100, is a widely expressed 150 kDa type I transmembrane glycoprotein of the Class 4 Semaphorin family with activity in the immune and nervous systems. The 861 amino acid (aa) Sema4D contains a 710 aa extracellular domain (ECD) with a sema domain and an immunoglobulin-like domain. Within the ECD region used as an immunogen, mouse Sema4D shares 87% and 93% aa identity with human and rat Sema4D, respectively. A soluble, active 120 kDa form is produced proteolytically upon activation of B and T cells. Sema4D binds Plexin-B1, but also CD72 on B and dendritic cells. In developing neurons, Sema4D assists in guidance. Sema4D is proangiogenic when expressed by tumor-associated macrophages.