

# Mouse Semaphorin 4D/CD100 Alexa Fluor® 594-conjugated Antibody

Monoclonal Rat IgG<sub>2B</sub> Clone # 547412

Catalog Number: FAB52351T  
100 µg

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	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.
<b>Source</b>	Monoclonal Rat IgG <sub>2B</sub> Clone # 547412
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Semaphorin 4D/CD100 Phe24-Thr657 Accession # NP_038688
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2 mg/mL 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
<b>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	Mouse splenocytes

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## BACKGROUND

Semaphorin 4D (Sema4D/CD100, previously sem J, G or C-like 2) 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, Sema-4D assists in guidance. Sema4D is proangiogenic when expressed by tumor-associated macrophages.

## PRODUCT SPECIFIC NOTICES

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