

## DESCRIPTION

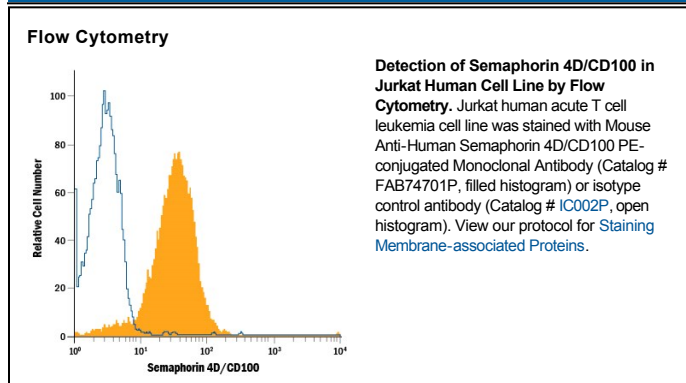
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Semaphorin 4D/CD100 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human Semaphorin 4B, 4C, 4G, or recombinant mouse Semaphorin 4D is observed. In Western blots, no cross-reactivity with rhSemaphorin 4A, 6A, or 6C is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 758726
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Semaphorin 4D/CD100 Met22-Arg734 Accession # Q92854
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	10 $\mu$ L/10 <sup>6</sup> cells	See Below

## DATA



## 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) Semaphorin 4D 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 Semaphorin 4D shares 87% and 93% aa identity with human and rat Semaphorin 4D, respectively. A soluble, active 120 kDa form is produced proteolytically upon activation of B and T cells. Semaphorin 4D binds CD72 on B and dendritic cells and Plexin B1 elsewhere. In developing neurons, Semaphorin 4D assists in guidance. Semaphorin 4D is proangiogenic when expressed by tumor-associated macrophages.