

## DESCRIPTION

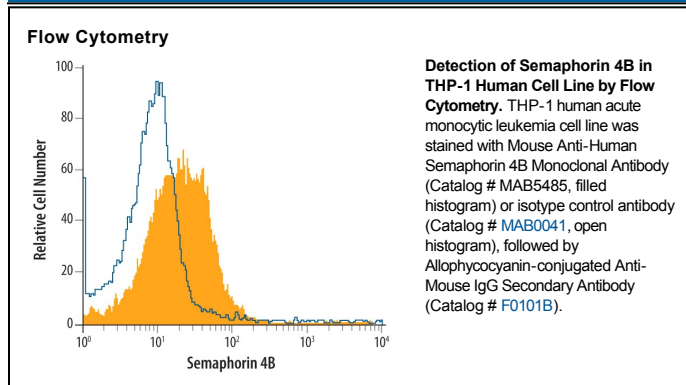
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Semaphorin 4B in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse Semaphorin 4B is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 561416
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Semaphorin 4B Leu39-Glu712 Accession # Q9NPR2
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

## 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 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

## DATA



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Semaphorin 4B (Sema4B; also SemaC) is a 95-100 kDa, class IV member of the Semaphorin family of proteins. It is expressed in neurons, and following PSD-95 induced clustering, participates in the formation or functioning of glutamatergic synapses. Mature human Sema4B is a type I transmembrane glycoprotein that is 794 amino acids (aa) in length. It contains a 674 aa extracellular region (aa 39-832) that is characterized by one Sema domain (aa 65-502), a PSI region (aa 520-574), and an Ig-like C2-type domain (aa 599-658). There is one potential soluble splice variant that shows a 29 aa substitution for aa 707-832. Over aa 39-712, human Sema4B shares 86% aa identity with mouse Sema4B.