

## DESCRIPTION

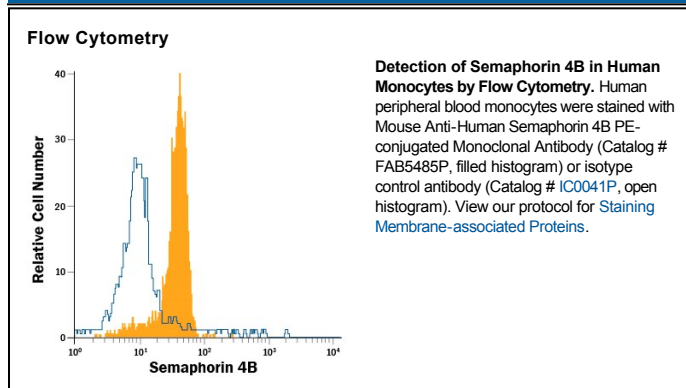
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Semaphorin 4B in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse Semaphorin 4B is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 561416
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Semaphorin 4B Leu39-Glu712 Accession # Q9NPR2
<b>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.

	Recommended Concentration	Sample
<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 4B (Sema4B), also known as 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 a C2-type Ig-like 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 sequence identity with mouse Sema4B.