

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Semaphorin 4B in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse Semaphorin 4B is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 561416
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Semaphorin 4B Leu39-Glu712 Accession # Q9NPR2
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	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
Flow Cytometry	0.25-1 µg/10 ⁶ cells	THP-1 human acute monocytic leukemia cell line

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 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.

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