

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Semaphorin 4D/CD100 in Western blots. In Western blots, less than 5% cross-reactivity with recombinant human (rh) Semaphorin 3A, rhSemaphorin 4B, and rhSemaphrin 6C is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Semaphorin 4D/CD100 Phe24-Thr657 Accession # NP_038688
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

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
Western Blot	0.1 µg/mL	Recombinant Mouse Semaphorin 4D/CD100 Fc Chimera (Catalog # 5235-S4)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.