

Mouse Semaphorin 4D/CD100 Antibody

Monoclonal Rat IgG_{2A} Clone # 547406 Catalog Number: MAB5235

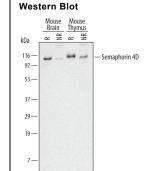
DESCRIPTION		
Species Reactivity	Mouse	
Specificity	Detects mouse Semaphorin 4D in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant mouse Semaphorin 3F is observed.	
Source	Monoclonal Rat IgG _{2A} Clone # 547406	
Purification	Protein A or G purified from hybridoma culture supernatant	
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Semaphorin 4D Phe24-Thr657 Accession # NP_038688	
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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
Western Blot	2 μg/mL	See Below

DATA



Detection of Mouse Semaphorin 4D/CD100 by Western Blot. Western blot shows lysates of mouse brain and thymus tissue under reducing (R) and non-reducing (NR) conditions. PVDF membrane was probed with 2 µg/ml. Rat Anti-Mouse Semaphorin 4D/CD100 Monoclonal Antibody (Catalog # MAB5235) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band for Semaphorin 4D/CD100 was detected at approximately 115 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
	*Cmall pack size / CD) is shipped with polar packs. Upon receipt, store it immediately at 20 to 70 °C

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 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) 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 Plexin B1, but also CD72 on B and dendritic cells. In developing neurons, Semaphorin 4D assists in guidance. Semaphorin 4D is proangiogenic when expressed by tumor-associated macrophages.

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