R&D SYSTEMS
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Mouse Semaphorin 4B Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6239

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Semaphorin 4B in direct ELISAs and Western blots. In Western blots, approximately 25% cross-reactivity with recombinant human Semaphorin 4B is observed and less than 2% cross-reactivity with recombinant mouse (rm) Semaphorin 4A and rmSemaphorin 4C is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Semaphorin 4B Leu31-Glu703 Accession # Q62179
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 as a 0.2 µm filtered solution in PBS.

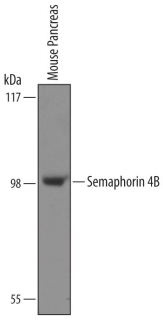
APPLICATIONS

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	1 µg/mL	See Below

DATA

Western Blot



Detection of Mouse Semaphorin 4B by Western Blot. Western blot shows lysates of mouse pancreas tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Mouse Semaphorin 4B Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6239) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Semaphorin 4B at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

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. *Small pack size (-SP) 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 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 mouse Sema4B is a type I transmembrane glycoprotein that is 793 amino acids (aa) in length. It contains a 673 aa extracellular region (aa 31-703) that is characterized by one Sema domain (aa 57-492), a PSI region (aa 512-582), and an Ig-like C2-type domain (aa 589-649). There are three phosphoserines in the cytoplasmic tail. Over aa 31-703, mouse Sema4B shares 86% and 95% aa identity with human and rat Sema4B, respectively.

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