Human/Mouse VAMP-2 Antibody

Monoclonal Mouse IgG_{2B} Clone # 541405

Catalog Number: MAB5136

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse VAMP-2 in Western blots. In Western blots, no cross-reactivity with recombinant human VAMP-1, -5, -7, or -8 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 541405
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human VAMP-2 Ser2-Lys94 Accession # P63027
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.

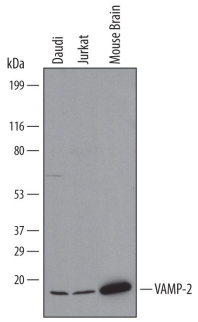
APPLICATIONS

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	0.1 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	Immersion fixed paraffin-embedded sections of human spinal cord

DATA

Western Blot



Detection of Human and Mouse VAMP-2 by Western Blot. Western blot shows lysates of Daudi human Burkitt's lymphoma cell line, Jurkat human acute T cell leukemia cell line, and mouse brain tissue. PVDF Membrane was probed with 0.1 µg/mL of Mouse Anti-Human/Mouse VAMP-2 Monoclonal Antibody (Catalog # MAB5136) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for VAMP-2 at approximately 13 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. *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

VAMP-2 (vesicle associated membrane protein 2; also Synaptobrevin-2) is a 13 kDa member of the Synaptobrevin family of proteins. It is a type IV transmembrane (TM) protein (i.e.- a type II TM protein whose C-terminus is almost completely transmembrane) that is found in the presynaptic terminals of neurons. VAMP-2 is targeted to presynaptic vesicles following binding to Synaptophysin I. Dissociation allows for synaptic vesicle fusion at the synaptic cleft with subsequent granule release. Human VAMP-2 is 116 amino acids (aa) in length. It contains one acetylation site at Ser2, a vSNARE coiled-coil homology region (aa 31-91), and a membrane-anchor domain (aa 95-114). Over aa 1-94, human VAMP-2 shares 100% and 99% aa identity with canine and mouse VAMP-2, respectively.

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