

## DESCRIPTION

<b>Species Reactivity</b>	Rat
<b>Specificity</b>	Detects rat Synaptotagmin-1 in Western blots. Detects Synaptotagmin-1 from rat, mouse, human, chicken, Xenopus, and fish.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # ASV30
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Rat brain synaptic plasma membranes
<b>Formulation</b>	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.

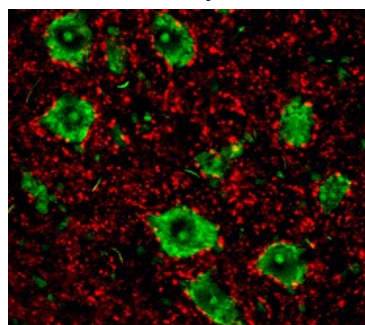
## APPLICATIONS

**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
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Western Blot</b>	Matthew, W.D. <i>et al.</i> (1981) J. Cell Biol. <b>91</b> :257. This application was not tested by R&D Systems.	
<b>Immunoprecipitation</b>	Matthew, W.D. <i>et al.</i> (1981) J. Cell Biol. <b>91</b> :257.	

## DATA

### Immunohistochemistry



**Synaptotagmin-1 in Rat Spinal Cord.** Synaptotagmin-1 was detected in perfusion fixed frozen sections of rat spinal cord using 8 µg/mL Mouse Anti-Rat Synaptotagmin-1 Monoclonal Antibody (Catalog # MAB43641) overnight at 4 °C. Tissue was stained (red) and counterstained (green). View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

The Synaptotagmins are a family of integral membrane proteins of synaptic vesicles. Rat Synaptotagmin-1 (Accession # P21707) is a 57 kDa, 421 aa glycoprotein containing two C2 domains related to protein kinase C, and sites for palmitoylation and binding of acidic phospholipids, calcium and calmodulin. Synaptotagmin-1 participates in the process of vesicular trafficking and exocytosis by inducing local Ca<sup>2+</sup>-dependent buckling of the plasma membrane. Rat Synaptotagmin-1 shares 98% aa identity or greater with mouse, human and bovine Synaptotagmin-1.