Technical Data Sheet

Purified Mouse Anti-Synaptotagmin II

Product Information

Material Number: 612716
Size: 50 µg
Concentration: 250 µg/ml
Clone: 26/Synaptotagmin II
Immunogen: Rat Synaptotagmin II aa. 413-422
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Reactivity Confirmed in Development: Human, Mouse
Lack of Reactivity Confirmed in Development: Dog, Chicken
Target MW: 67 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Synaptotagmin I belongs to a family of C2 domain containing proteins, which include Synaptotagmin II to XI and Srg1. All of the members of this protein family contain a single transmembrane region and two copies of an internal repeat that is homologous to the regulatory region of Protein Kinase C (C2A and C2B domains). Synaptotagmin I-V and IX-XI are found in brain, while synaptotagmin VI-VIII are found in non-neuronal tissues. Synaptotagmin I and II have regulatory roles in synaptic vesicle docking and fusion with the plasmalemma. Both synaptotagmin I and II act as vSNAREs that form a complex with SNAP-25 and syntaxin at the plasma membrane. This complex is required for rapid, calcium-dependent synaptic vesicle exocytosis. In addition to their roles in exocytosis, synaptotagmin I and II can bind to calcium channels, calmodulin, and the clathrin adaptor protein AP-2. Synaptotagmins III, V, VI, and X cannot bind IP4 like other synaptotagmins, but like most synaptotagmins these family members form heteromers with other synaptotagmins. Synaptotagmins IV, X, and Srg1 may regulate vesicular trafficking during brain development and plasticity. In neuronal and non-neuronal tissues, synaptotagmins may be important for vesicle exocytosis, endocytosis, and trafficking, as well calcium signaling.

Western blot analysis of Synaptotagmin II on rat cerebrum lysate. Lane 1: 1:5000, lane 2: 1:10000, lane 3: 1:20000 dilution of anti-Synaptotagmin II.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

| Western blot | Routinely Tested |

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**Recommended Assay Procedure:**
Western blot: Please refer to http://wwwbdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml.

**Suggested Companion Products**

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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>611463</td>
<td>Rat Cerebrum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
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**Product Notices**
1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

**References**