Technical Data Sheet

Purified Mouse Anti-Mint1

Product Information

Material Number: 611028
Size: 50 µg
Concentration: 250 µg/ml
Clone: 23/Mint1
Immunogen: Rat Mint 1 aa. 268-377
Isotype: Mouse IgG1
Reactivity: QC Testing: Rat
Tested in Development: Mouse
Target MW: 120 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Neuronal communication via neurotransmitter release is mediated by the synaptic vesicle cycle. The initial step in exocytosis is the docking of the vesicle in the active zone of the plasma membrane. This step is followed by fusion of the vesicle and plasma membrane and exocytosis. Munc18-1, a major brain protein, is essential for exocytosis. It binds the vesicle fusion protein syntaxin, along with Doc2a and 2b, two proteins that associate peripherally with the synaptic vesicle. Munc18-1 is a family member of membrane trafficking proteins. Its function is thought to be mediated by two Munc18-1-interacting proteins termed Mint 1 and Mint 2, which are 50% homologous. They are expressed exclusively in brain and bind Munc18-1 (MID) with high affinity. They contain an N-terminal Munc18-1 interacting domain and C-terminal PTB (pTyr/PIP) interaction) and PDZ (membrane protein interaction) domains, suggesting the ability of Mint proteins to link vesicle exocytosis to Tyr phosphorylation and/or localization at synaptic intercellular junctions. Thus, the Mint proteins, along with Munc18-1 and syntaxin, form a multimeric complex that mediates appropriate docking/fusion of synaptic vesicles.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.

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

<table>
<thead>
<tr>
<th>Western blot</th>
<th>Routinely Tested</th>
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<tbody>
<tr>
<td>Immunofluorescence</td>
<td>Tested During Development</td>
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<tr>
<td>Immunohistochemistry</td>
<td>Tested During Development</td>
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Recommended Assay Procedure:
Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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</thead>
<tbody>
<tr>
<td>611463</td>
<td>Rat Cerebrum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Igs</td>
<td>1.0 ml</td>
<td>(none)</td>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Igs (Multiple Adsorption)</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.

References