Technical Data Sheet

Purified Mouse Anti-CASK

Product Information
- Material Number: 610782
- Size: 50 µg
- Concentration: 250 µg/ml
- Clone: 7/CASK
- Immunogen: Rat CASK aa. 353-486
- Isotype: Mouse IgG1
- Reactivity: QC Testing: Rat
- Tested in Development: Mouse, Human, Dog, Frog
- Target MW: 120 kDa
- Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description
CASK is a recently identified cytosolic protein kinase with homology to the Ca2+/CaM-dependent kinases and the synaptic associated proteins SAPs/PSDs. Like the SAPs, CASK contains a PDZ domain, an SH3 region, and a guanylate kinase domain. However, unlike the rest of the PDZ protein family, the amino terminus of CASK has significant homology with the Ca2+/Calmodulin-dependent kinases. Although widely expressed, CASK is highly enriched in the synaptic plasma membrane where it associates with neurexins, the neuronal cell surface proteins. Neurexins are a complex family of surface proteins that act as receptors for a number of venoms and toxins and regulate the clustering of several ion channels at the synapse. In addition, neurexins bind heterotypically to neuroligins, therefore adjoining different cell types. Neuroligins bind intracellularly to PSD95 and related proteins, whereas neurexins bind to CASK through their C-terminal region and at CASK's PDZ domain. The interaction of neurexins and CASK at the outside of the cell may modulate CASK's activity and trigger an intracellular signaling cascade.

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

Western blot analysis of CASK on a rat cerebrum lysate.
Application Notes

<table>
<thead>
<tr>
<th>Application</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>Western blot</td>
<td>Routinely Tested</td>
</tr>
<tr>
<td>Immunofluorescence</td>
<td>Tested During Development</td>
</tr>
<tr>
<td>Immunoprecipitation</td>
<td>Not Recommended</td>
</tr>
<tr>
<td>Immunohistochemistry</td>
<td>Not Recommended</td>
</tr>
</tbody>
</table>

**Recommended Assay Procedure:**

**Western blot:** Please refer to http://wwwbdbiosciences.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>
</tr>
</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 Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
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<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</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.
2. Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.
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**