Technical Data Sheet

Purified Mouse Anti-Ankyrin B

**Product Information**
- **Material Number:** 558892
- **Size:** 0.1 mg
- **Concentration:** 0.5 mg/ml
- **Clone:** 2.20
- **Immunogen:** Human Ankyrin B Spectrin Binding Domain Peptide
- **Isotype:** Mouse IgG1
- **Reactivity:** QC Testing: Rat
  Reported: Human
- **Target MW:** 110-440 kDa
- **Storage Buffer:** Aqueous buffered solution containing ≤0.09% sodium azide.

**Description**

Ankyrins are a family of proteins which were first discovered in erythrocytes and shown to bind to spectrin, a primary component of the cytoskeletal architecture. They have since been shown to be expressed at very high levels in the vertebrate brain and are also found in other cell types. Ankyrins function by acting as adaptors to link integral membrane proteins, including cell adhesion and ion channel molecules to the cytoskeleton. The structure of ankyrin consists of three domains, two highly conserved N-terminal and one C-terminal variable domain. The conserved regions contain a membrane-binding domain of ~89-95 kDa and a spectrin-binding domain of ~62 kDa, while the variable region has pre-mRNA alternative splicite sites. Two ankyrins have been extensively characterized: ankyrin R is the product of the ANK1 gene and is primarily expressed in the brain, although alternatively spliced forms are found in erythrocytes; ankyrin B is the product of the ANK2 gene, located on a different chromosome from ANK1, and is primarily expressed in neonatal and adult brain but is also found in heart, lymphocytes and platelets. Studies done on ankyrinB (-/-) knockout mice, which die by postnatal day 21, have demonstrated a link between the L1 cell adhesion molecule and ankyrin B in premyelinated axons. Isoforms of ankyrin B have been reported to be detectable ranging from approximately 440, 220, 150 and 110 kDa in western blot analysis, depending on the tissue-type of origin.

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.

**Western blot analysis of Ankyrin B.** Rat brain lysates were probed with 2 µg/ml (lane 1) or 5 µg/ml (lane 2) of the mouse anti-ankyrin B antibody (clone 2.20). Ankyrin B isoforms can be observed at ~150 and ~220 kDa, respectively.

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**Preparation and Storage**

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at 4°C.

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**BD Biosciences**

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558892 Rev. 4
Recommended Assay Procedure:
Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml. Neonatal rat brain membranes are suggested for use as the positive control.

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>611463</td>
<td>Rat Cerebrum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>611464</td>
<td>Rat Cerebellum Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
</tbody>
</table>

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.

References