Technical Data Sheet

Purified Mouse Anti-β-Spectrin II

Product Information

Material Number: 612563
Size: 150 µg
Concentration: 250 µg/ml
Clone: 42/B-Spectrin II
Immunogen: Human β-Spectrin II aa. 2101-2189
Isotype: Mouse IgG1
Reactivity: QC Testing: Human
Target MW: 280 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Spectrins are central components of the cytoskeleton that form a scaffold below the plasma membrane. Spectrins contain two subunits, α and β, which intertwine to form heterodimers that can self-associate into elongated tetramers. α-spectrin I and β-spectrin I form heterodimers in red blood cells, while nonerythroid mammalian cells contain heterodimers of α-spectrin I and II with β-spectrin I to V. The structure of spectrins includes a succession of triple-helical repeats alongside various domains, such as SH3 domain, EF hands, PH domains, and binding domains for ankyrin, actin, band 4.1, and calmodulin. α-spectrin II is a widely expressed non-erythroid α-spectrin that contains an SH3 domain, a calmodulin binding site, and two cleavage sites for proteases, such as calpains and caspase-3. B-spectrin II is a widely expressed non-erythroid β-spectrin that contains a C-terminal region that interacts with α-spectrins and a PH domain. α-spectrin II and β-spectrin II, like many other spectrins, can form heterodimers that can self-associate into tetramers, as well as interact with Band 4.1, F-actin, and other proteins near the plasma membrane. This scaffold of cytoskeletal and plasma membrane proteins is critical for the maintenance of cell structure.


Immunofluorescent staining of HeLa cells (Human cervical epitheloid carcinoma; ATCC CCL-2.2).

Preparation and Storage

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

*Western blot:* Please refer to [http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml](http://www.bdbiosciences.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>
</tr>
</thead>
<tbody>
<tr>
<td>611451</td>
<td>Jurkat Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
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<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
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<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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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**