Technical Data Sheet

Purified Mouse Anti-GFAP Cocktail

Product Information

Material Number: 556330
Size: 0.5 mg
Concentration: 0.5 mg/ml
Reactivity: QC Testing: Human
Tested in Development: Mouse, Rat, Pig, Dog, Chicken, Rabbit, Cow, Guinea Pig, Sheep
Target MW: 50 kDa
Storage Buffer: Aqueous buffered solution containing protein stabilizer and ≤0.09% sodium azide.

Component: 51-410-60331
Description: Purified Anti-GFAP
Clone Name: 2E1

Component: 51-410-60321
Description: Purified Anti-GFAP
Clone Name: 1B4

Component: 51-410-60311
Description: Purified Anti-GFAP
Clone Name: 4A11

Description

GFAP (Glial Fibrillary Acid Protein) is the major protein of glial filaments in differentiated astrocytes. BD Pharmingen offers a panel of monoclonal antibodies (4A11, 1B4, 2E1) that specifically recognize GFAP. They do not cross-react with other intermediate filaments such as vimentin, neurofilament proteins, desmin, keratin, neurotubules or microfilaments. Bovine spinal cord homogenate was used as immunogen for these clones. Clones 4A11, 1B4, and 2E1 have broad species reactivity, recognizing GFAP in brain homogenates from human, mouse, rat, bovine, ovine, porcine, rabbit, guinea pig and chicken. The cocktail preparation was made by combining all three antibodies in equal concentrations.  

Immunohistochemical staining of GFAP in human brain cells. A formalin-fixed, paraffin-embedded section of human brain was stained for GFAP using Purified Mouse Anti-GFAP Cocktail (Cat. No. 556330), at a concentration of 10-15 µg/ml. Samples were counterstained with DAB Substrate Kit (Cat. No. 550880) and hematoxylin, then developed with Anti-Mouse Ig HRP Detection Kit (Cat. No. 551011). The arrow indicates the stained astrocyte.

Flow cytometric analysis of GFAP expression on human brain cell line U373. U373 cells were stained with either Purified Mouse Anti-GFAP Cocktail (solid line histogram) or Purified Mouse IgG2b, κ Isotype Control (dashed line histogram; Cat. No. 556654), followed by PE Goat Anti-Mouse Ig (Multiple Adsorption) (Cat. No. 550589). Fluorescent histograms were derived from gated events with the side and forward light-scattering characteristics of viable cells.
Preparation and Storage
Store undiluted at 4°C.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

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<tr>
<th>Application</th>
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<tbody>
<tr>
<td>Flow cytometry</td>
<td>Routinely Tested</td>
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<tr>
<td>Immunohistochemistry-paraffin</td>
<td>Tested During Development</td>
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<tr>
<td>Immunofluorescence</td>
<td>Tested During Development</td>
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<tr>
<td>Immunohistochemistry-frozen</td>
<td>Reported</td>
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<tr>
<td>Western blot</td>
<td>Reported</td>
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</table>

Recommended Assay Procedure:
Applications include indirect immunofluorescence of tissue-cultured cells, immunohistochemical staining of formalin-fixed paraffin-embedded brain tissue sections (10-15 µg/ml); and western blot analysis (1-2 µg/ml). Rat brain is suggested as a positive control. BD Pharmingen also offers these GFAP-specific antibodies separately: clone 4A11 (Cat. No. 556327), clone 1B4 (Cat. No. 556328), clone 2E1 (Cat. No. 556329).

Suggested Companion Products

<table>
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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>551011</td>
<td>Anti-Mouse Ig HRP Detection Kit</td>
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<td>556327</td>
<td>Purified Mouse Anti-GFAP</td>
<td>0.5 mg</td>
<td>4A11</td>
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<td>556328</td>
<td>Purified Mouse Anti-GFAP</td>
<td>0.5 mg</td>
<td>1B4</td>
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<td>556329</td>
<td>Purified Mouse Anti-GFAP</td>
<td>0.5 mg</td>
<td>2E1</td>
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<tr>
<td>550880</td>
<td>DAB Substrate Kit</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<td>556654</td>
<td>Purified Mouse IgG2b, κ Isotype Control</td>
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<td>27-35</td>
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<tr>
<td>550589</td>
<td>PE Goat Anti-Mouse Ig (Multiple Adsorption)</td>
<td>0.2 mg</td>
<td>Polyclonal</td>
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</table>

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
6. Please refer to www.regdocs.bd.com to access safety data sheets (SDS).

References

