Technical Data Sheet

PE Mouse anti-GFAP

Product Information
Material Number: 561483
Alternate Name: Glial Fibrillary Acidic Protein, FLJ45472
Size: 50 tests
Vol. per Test: 5 µl
Clone: IB4
Immunogen: Cow spinal cord homogenate
Isotype: Mouse IgG2b
Reactivity: QC Testing: Human
Reported by Western Blot (Cat. No. 556328): Rat, Mouse, Cow, Sheep, Dog, Pig, Rabbit, Guinea Pig, Chicken

Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description
GFAP (Glial Fibrillary Acidic Protein) is the major protein of glial filaments in differentiated astrocytes. BD Biosciences offers a panel of monoclonal antibodies (4A11, IB4, 2E1) that specifically recognize GFAP. They do not cross-react with other intermediate filaments such as vimentin, neurofilament proteins, desmin, keratin, neurotubules or microfilaments.

Preparation and Storage
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Analysis of GFAP in differentiated human Neural Stem Cells (NSC). NSC derived from H9 cells (WiCell, Madison, WI) were differentiated in NSC differentiation medium [containing N2 and B-27 supplements (Life Technologies), recombinant human BDNF and GDNF (Peprotech), dibutyryl cyclic AMP (Sigma)] for 11 days followed by AGM™ Astrocyte Growth Medium (Lonza) for 16 days. The cells were fixed (BD Cytofix™ buffer, Cat. No. 554655) for 20 minutes at room temperature, permeabilized with BD™ Phosflow Perm/Wash Buffer I (Cat. No. 557885), and then stained with PE Mouse anti-GFAP (left panel) and co-stained with APC mouse anti-CD44 (Cat. No. 559942) as shown in the right panel. This antibody conjugate also works with BD™ Phosflow Perm Buffer III. Flow cytometry was performed on a BD LSR™ II flow cytometer.

Analysis of GFAP in Neural Stem cells (NSC). NSC were isolated by sorting from Embryoid bodies and were grown for 8 passages post sort, fixed (BD Cytofix™ buffer, Cat. No. 554655) for 20 minutes at room temperature, permeabilized with BD™ Phosflow Perm Buffer I (Cat. No. 557885), and then stained with either PE Mouse anti-GFAP (solid line) or PE Mouse IgG2b, κ Isotype Control (Cat. No. 555058, dashed line).
Application Notes

Application
Intracellular staining (flow cytometry) Routinely Tested

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>554655</td>
<td>Fixation Buffer</td>
<td>100 ml</td>
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<tr>
<td>557885</td>
<td>Perm/Wash Buffer I</td>
<td>125 ml</td>
<td>(none)</td>
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<tr>
<td>558050</td>
<td>Perm Buffer III</td>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>555058</td>
<td>PE Mouse IgG2b, κ Isotype Control</td>
<td>0.1 mg</td>
<td>27-35</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).
2. Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at wwwbdbiosciences.com/colors.
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References
McLendon RE, Bigner DD. Immunohistochemistry of the glial fibrillary acidic protein: basic and applied considerations. Brain Pathol. 1994; 4(3):221-228. (Biology)