Technical Data Sheet

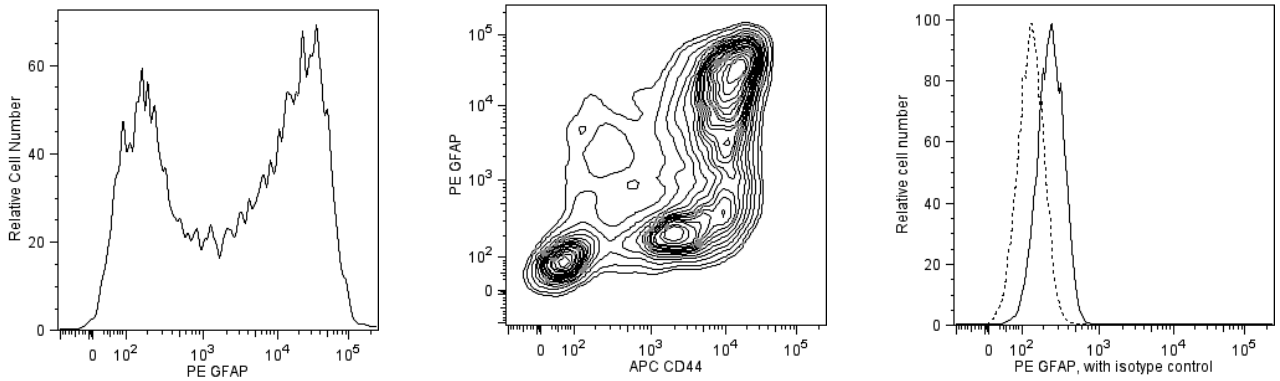
PE Mouse anti-GFAP

Product Information

Material Number:	**561483**
Alternate Name:	Glial Fibrillary Acidic Protein, FLJ45472
Size:	50 tests
Vol. per Test:	5 µl
Clone:	1B4
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 (**G**lial **F**ibrillary **A**cidic **P**rotein) is the major protein of glial filaments in differentiated astrocytes. BD Biosciences 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.



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), dibutryl 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).*

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.

BD Biosciences

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Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
557885	Perm/Wash Buffer I	125 ml	(none)
558050	Perm Buffer III	125 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
555058	PE Mouse IgG2b, κ Isotype Control	0.1 mg	27-35

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Please refer to www.bdbiosciences.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 www.bdbiosciences.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)

McLendon RE, Burger PC, Pegram CN, Eng LF, Bigner DD. The immunohistochemical application of three anti-GFAP monoclonal antibodies to formalin-fixed, paraffin-embedded, normal and neoplastic brain tissues. *J Neuropathol Exp Neurol.* 1986; 45(6):692-703. (Biology)

Pegram CN, Eng LF, Wikstrand CJ, McComb RD, Lee YL, Bigner DD. Monoclonal antibodies reactive with epitopes restricted to glial fibrillary acidic proteins of several species. *Neurochem Pathol.* 1985; 3(2):119-138. (Biology)