

Technical Data Sheet

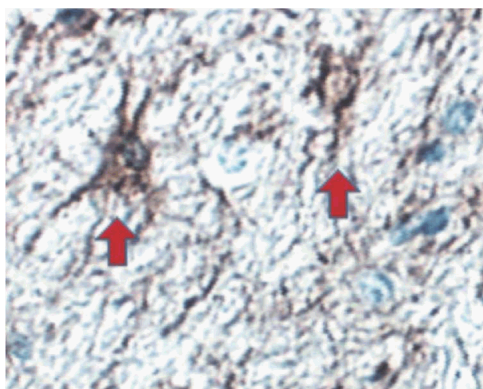
Purified Mouse Anti-GFAP**Product Information**

Material Number:	556329
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	2E1
Immunogen:	Bovine spinal cord homogenate
Isotype:	Mouse IgG2b
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human, Cow, Sheep, Dog, Pig, Rabbit, Guinea Pig, Chicken
Target MW:	50 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

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 clone 2E1. This antibody has broad species reactivity. It recognizes GFAP in brain homogenates from human, mouse, rat, cow, sheep, dog, pig, rabbit, guinea pig and chicken. 2E1 is particularly useful for identifying GFAP in immunohistochemistry of frozen and formalin-fixed, paraffin-embedded brain tissue sections. Additional applications include western blot analysis and indirect immunofluorescence of tissue-cultured cells.

The antibody is routinely tested by immunohistochemical staining of formalin-fixed, paraffin-embedded brain tissue samples, which were subjected to pretreatment with citrate or tissue unmasking fluid (see figure). Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Formalin-fixed, paraffin embedded section of human brain stained for GFAP (clone 2E1, Cat. No. 556329) using a DAB chromogen and hematoxylin counterstain. Red arrows indicate astrocytes (positive).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at 4° C.

Application Notes**Application**

Immunohistochemistry-formalin (antigen retrieval required)	Routinely Tested
Immunofluorescence	Tested During Development
Western blot	Reported
Immunohistochemistry-frozen	Reported

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Recommended Assay Procedure:

Pharmingen offers additional GFAP specific antibodies: clone 1B4 (Cat. No. 556328), 4A11 (Cat. No. 556327), and clones 1B4, 4A11, 2E1 combined and available as a "cocktail" (Cat. No. 556330). Applications include immunohistochemical staining of formalin-fixed paraffin-embedded brain tissue sections (5-25 µg/ml); and western blot analysis (1-2 µg/ml). Rat brain is suggested as a positive control.

Suggested Companion Products

Catalog Number	Name	Size	Clone
556330	Purified Mouse Anti-GFAP Cocktail	0.5 mg	(none)
556328	Purified Mouse Anti-GFAP	0.5 mg	1B4
556327	Purified Mouse Anti-GFAP	0.5 mg	4A11
551011	Anti-Mouse Ig HRP Detection Kit	200 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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

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

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