



Qty: 100 µg/200 µl

Rat anti-GFAP

Catalog No. 13-0300

Lot No. See product label

Rat anti-Glial Fibrillary Acidic Protein

FORM

Liquid. Purified antibody (from culture supernatant) in PBS containing 0.1% sodium azide at a concentration of 0.5 mg/ml.

CLONE: 2.2B10⁽³⁾

ISOTYPE: Rat IgG2a-kappa

CLONING PARTNER: Sp/2

IMMUNOGEN: Enriched bovine glial filaments

SPECIFICITY

This monoclonal antibody reacts with GFAP a 55 kDa protein present in astrocytes and Bergmann-glial cells. Reactivity is not dependent on the state of phosphorylation⁽⁹⁾. GFAP was originally isolated from fibrous neuroglia of multiple sclerosis plaques.

REACTIVITY: Bovine, human and rodent.

APPLICATION

This antibody stains reactive astrocytes, that are induced by a variety of CNS injuries, in the brain of rodent and human samples.

USAGE

ELISA ⁽³⁾	0.1-0.5 µg/ml
Immunohistochemistry ^(1,4) *	10-50 µg/ml
Immunoblotting ⁽⁶⁾	0.1-0.5 µg/ml
Immunoprecipitation:	2-5 µg
Western Blotting ⁽³⁾	
Immunofluorescence ^(3,12)	
Flow Cytometry ⁽¹²⁾	

* This antibody is suitable for immunohistochemical staining of Bouin's-fixed, frozen or paraffin-embedded tissue sections.

STORAGE

Store at -20°C. Avoid repeated thawing and freezing.

BACKGROUND

The 50 kDa type III intermediate filament protein glial fibrillary acidic protein (GFAP) is a major structural component of astrocytes. GFAP associates with the calcium binding protein annexin II-p2 and S-100. Association with these proteins together with phosphorylation regulates GFAP polymerization. Astrocytes respond to brain injury by proliferation (astrogliosis), and one of the first events to occur during astrocyte proliferation is increased GFAP expression. Interestingly, antibodies to GFAP have been detected in individuals with dementia.

(cont'd)

www.invitrogen.com

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

PI130300

(Rev 10/08) DCC-08-1089

Important Licensing Information - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, www.invitrogen.com). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

REFERENCES

1. Velasco, M.E. et al.; *Cancer* 45:484 (1980).
2. Bonnin, J.M. et al.; *Acta Neuropathology* 62:185 (1984).
3. Lee VM-Y et al; *J.Neurochem* 42:25-32 (1984).
4. Trojanowski JQ et al; *J.Neurochem* 6(3): 650-660 (1986).
5. Schmidt ML et al; *Lab Invest* 56:282-294 (1987).
6. Kosik KS et al; *Neuron* 1:817-825 (1988).
7. Schmidt ML et al; *Lab Invest* 59:460-466 (1988).
8. Mokuna, K, et al; *J Neurosci Res* 23:396 (1989).
9. Molenaar, et al; *Exp Neurology* 108:1-9 (1990).
10. Tohyama T et al; *Am J Pathol*, 142:871-882 (1993).
11. Tohyama T et al; *Am J Pathol* 142:883-892 (1993).
12. Thilenius, A.R.B., et al; *J. Immunol.* 162(2): 643-650 (1999).

RELATED PRODUCTS

<i>Product</i>	<i>Conjugate</i>	<i>Cat. No.</i>
Goat anti-Rat IgG (H+L)	Purified	62-9500
	FITC	62-9511
	TRITC (Rhodamine)	62-9514
	Cy TM 3	62-9515
	Cy TM 5	62-9516
	HRP	62-9520
	Alkaline Phosphatase	62-9522
	Biotin	62-9540
Protein A rec-Protein G	Sepharose [®] 4B	62-9541
	Sepharose [®] 4B	10-1041
	Sepharose [®] 4B	10-1241

Zymed[®] and ZyMAX[™] are trademarks of Zymed Laboratories Inc. Cy[™] is a trademark of Amersham Life Sciences, Inc. Sepharose[®] is a registered trademark of Pharmacia LKB.

For Research Use Only

www.invitrogen.com

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

PI130300

(Rev 10/08) DCC-08-1089

Important Licensing Information - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, www.invitrogen.com). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.