Datasheet: MCA4684GA

Description:	MOUSE ANTI BOVINE GFAP
Specificity:	GFAP
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	4A11
Isotype:	IgG2b
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/500 - 1/10000
Immunofluorescence			▪	
Radioimmunoassays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

(1)**This product requires protein digestion pre-treatment of paraffin sections e.g. trypsin or pronase.**

Target Species

Bovine

Species Cross Reactivity

Reacts with: Human, Mouse, Rat, Sheep, Dog, Pig, Rabbit, Guinea Pig, Chicken

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Bovine spinal cord homogenate.
External Database Links	**UniProt:** P14136 Related reagents P47819 Related reagents P03995 Related reagents Q28115 Related reagents **Entrez Gene:** 2670 GFAP Related reagents 24387 Gfap Related reagents 281189 GFAP Related reagents 14580 Gfap Related reagents
RRID	AB_10612765
Specificity	**Mouse anti Bovine GFAP antibody, clone 4A11** recognizes glial fibrillary acidic protein, or GFAP, a class III intermediate filament. During development of the central nervous system, GFAP distinguishes astrocytes from other glial cells. It is involved in various cellular functions, such as cell structure and movement, cell communication and the functioning of the blood-brain barrier. It also plays a role in mitosis by adjusting the filament network present in the cell. Defects in GFAP are a cause of Alexander disease, a rare disorder of the central nervous system affecting mostly males. It is a progressive leukoencephalopathy resulting in mental and physical retardation, dementia, seizures and early death. Mouse anti Bovine GFAP antibody, clone 4A11 may be used in conjunction with Mouse anti Bovine GFAP antibody, clone 1B4 (MCA4733) and Mouse anti Bovine GFAP antibody, clone 2E1 (MCA4734) for increased sensitivity when used in immunohistology.
Histology Positive Control Tissue	Brain

References	1. Pegram, C.N. *et al.* (1985) Monoclonal antibodies reactive with epitopes restricted to glial fibrillary acidic proteins of several species. Neurochem Pathol. 3 (2): 119-38. 2. McLendon, R.E. *et al.* (1986) The immunohistochemical application of three anti-GFAP monoclonal antibodies to formalin-fixed, paraffin-embedded, normal and neoplastic brain tissues. J Neuropathol Exp Neurol. 45 (6): 692-703. 3. Zendedel, A. *et al.* (2016) Regulatory effect of triiodothyronine on brain myelination and astrogliosis after cuprizone-induced demyelination in mice. Metab Brain Dis. 31 (2): 425-33. 4. Martinez-Valbuena, I. *et al.* (2019) Amylin as a potential link between type 2 diabetes and alzheimer disease. Ann Neurol. 86 (4): 539-51. 5. Vitorino, L.C. *et al.* (2022) Physical exercise influences astrocytes in the striatum of a Parkinson's disease male mouse model. Neurosci Lett. 771: 136466.
Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA4684GA 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG2b NEGATIVE CONTROL (MCA691)

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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