

# Datasheet: MCA4739 BATCH NUMBER 157079

Description:	MOUSE ANTI RABBIT GAPDH
Specificity:	GAPDH
Other names:	GLYCERALDEHYDE-3-PHOSPHATE DEHYDROGENASE
Format:	Purified
<b>Product Type:</b>	Monoclonal Antibody
Clone:	6C5
Isotype:	lgG1
Quantity:	0.2 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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			•	
Immunohistology - Frozen	•			
Immunohistology - Paraffin			•	
ELISA	•			
Immunoprecipitation				
Western Blotting	•			
Immunofluorescence	•			

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.

Target Species	Rabbit

# Species Cross Reactivity

Reacts with: Human, Pig, Dog, Cat, Rat, Mouse, Xenopus, Tube-nosed Bat, Chicken, Sheep, African green monkey, Crucian Carp

Based on sequence similarity, is expected to react with: Vertebrates

**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 A from ascites			
Buffer Solution	Phosphate buffered saline			
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> )			
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml			
Immunogen	Rabbit muscle GAPDH.			
External Database Links	UniProt:  P46406 Related reagents P04406 Related reagents			
	P04797 Related reagents			
	P16858 Related reagents			
	P00355 Related reagents			
	Entrez Gene:			
	100009074 GAPDH Related reagents			
	2597 GAPDH Related reagents			
	396823 GAPDH Related reagents			
	14433 Gapdh Related reagents			
	24383 Gapdh Related reagents			
Synonyms	Gapd, GAPD			
RRID	AB_1720065			
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the Sp2/0 myeloma cell line.			
Specificity	Mouse anti Rabbit GAPDH antibody, clone 6C5 recognizes glyceraldehyde-3-phosphate dehydrogenase (GAPDH), a ~36 kDa multifunctional protein whose main function is to catalyse the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate, in conjunction with inorganic phosphate and nicotinamide adenine dinucleotide (NAD). This reaction is an important energy yielding step in carbohydrate metabolism.  GAPDH has also been shown to translocate to the nucleus under a variety of stressors, most of which are associated with oxidative stress, whereby it mediates cell death. A			
	further report has shown that GAPDH binds to several proteins that are responsible for neurodegenerative diseases, such as amyloid precursor protein and Huntingtin ( <u>Hara et al. 2006</u> ).			

#### References

- 1. Latasa, M.U. *et al.* (2010) Oral methylthioadenosine administration attenuates fibrosis and chronic liver disease progression in Mdr2-/- mice. <u>PLoS One. 5: e15690.</u>
- 2. Haller, S. *et al.* (2012) Expression profiles of metabolic enzymes and drug transporters in the liver and along the intestine of beagle dogs. Drug Metab Dispos. 40 (8): 1603-10.
- 3. Zizza, P. *et al.* (2012) Phospholipase A2IVα regulates phagocytosis independent of its enzymatic activity. <u>J Biol Chem. 287: 16849-59.</u>
- 4. Zschemisch, N.H. *et al.* (2012) Zinc-finger nuclease mediated disruption of Rag1 in the LEW/Ztm rat. <u>BMC Immunol</u>. 13: 60.
- 5. Agarwal, P. *et al.* (2013) Tumor suppressor gene p16/INK4A/CDKN2A-dependent regulation into and out of the cell cycle in a spontaneous canine model of breast cancer. <u>J</u> Cell Biochem. 114 (6): 1355-63.
- 6. Koetzler, R. *et al.* (2009) Nitric oxide inhibits IFN regulatory factor 1 and nuclear factor-kappaB pathways in rhinovirus-infected epithelial cells. <u>J Allergy Clin Immunol. 124:</u> 551-7.
- 7. Suzuki, K. *et al.* (2016) Human Host Defense Cathelicidin Peptide LL-37 Enhances the Lipopolysaccharide Uptake by Liver Sinusoidal Endothelial Cells without Cell Activation. <u>J. Immunol.</u> 196 (3): 1338-47.
- 8. Beaudin, S. & Welsh, J. (2016) 1,25-Dihydroxyvitamin D induces the glutamate transporter SLC1A1 and alters glutamate handling in non-transformed mammary cells. Mol Cell Endocrinol. 424: 34-41.
- 9. Hao, F. *et al.* (2017) Inhibition of Caspase-8 does not protect from alcohol-induced liver apoptosis but alleviates alcoholic hepatic steatosis in mice. <u>Cell Death Dis. 8 (10): e3152.</u>
  10. Wang, S. *et al.* (2019) Tumor necrosis factor-inducible gene 6 reprograms hepatic stellate cells into stem-like cells, which ameliorates liver damage in mouse. <u>Biomaterials.</u> 219: 119375.

#### **Storage**

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA4739">https://www.bio-rad-antibodies.com/SDS/MCA4739</a>
Regulatory	For research purposes only

## Related Products

### **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12...)

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR70...)

Rabbit Anti Mouse IgG (STAR13...)

HRP

Rabbit Anti Mouse IgG (STAR9...)

FITC

Goat Anti Mouse IgG (STAR77...) HRP
Goat Anti Mouse IgG (STAR76...) RPE

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M374213:201023'

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