

## Datasheet: MCA4739B

<b>Description:</b>	MOUSE ANTI RABBIT GAPDH:Biotin
<b>Specificity:</b>	GAPDH
<b>Other names:</b>	GLYCERALDEHYDE-3-PHOSPHATE DEHYDROGENASE
<b>Format:</b>	Biotin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	6C5
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			■	
Immunohistology - Frozen	■			
Immunohistology - Paraffin			■	
ELISA	■			
Immunoprecipitation	■			
Western Blotting	■			1/100 - 1/1000
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.

<b>Target Species</b>	Rabbit
<b>Species Cross Reactivity</b>	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 <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG conjugated to Biotin - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin
<b>Approx. Protein</b>	IgG concentration 0.1mg/ml

## Concentrations

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**Immunogen** Rabbit muscle GAPDH.

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## 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](#)

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**Synonyms** Gapd, GAPD

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**Fusion Partners** Spleen cells from immunised Balb/c mice were fused with cells of the Sp2/0 myeloma cell line.

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## 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 ([Hara \*et al.\* 2006](#)).

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**Western Blotting** MCA4739B is suitable for use as a loading control.

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## References

1. Latasa, M.U. *et al.* (2010) Oral methylthioadenosine administration attenuates fibrosis and chronic liver disease progression in Mdr2<sup>-/-</sup> mice. [PLoS One. 5: e15690.](#)
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 A2IV $\alpha$  regulates phagocytosis independent of its enzymatic activity. [J Biol Chem. 287: 16849-59.](#)
4. Zschemisch, N.H. *et al.* (2012) Zinc-finger nuclease mediated disruption of Rag1 in the LEW/Ztm rat. [BMC Immunol. 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. [J 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. [J Allergy Clin Immunol. 124: 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. [J Immunol. 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. [Cell Death Dis. 8 \(10\): e3152.](#)

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<b>Storage</b>	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.
<b>Shelf Life</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: 10041: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf</a>
<b>Regulatory</b>	For research purposes only

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