

## Datasheet: VMA00048

<b>Description:</b>	MOUSE ANTI ACTIN BETA
<b>Specificity:</b>	ACTIN BETA
<b>Other names:</b>	ACTB
<b>Format:</b>	Purified
<b>Product Type:</b>	PrecisionAb Monoclonal
<b>Clone:</b>	4C2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 µl

### 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
Western Blotting	▪			1/1000

**The PrecisionAb label is reserved for antibodies that meet the defined performance criteria within Bio-Rad's ongoing antibody validation programme. Click [here](#) to learn how we validate our PrecisionAb range.** Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Further optimization may be required dependent on sample type.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	Reacts with: Mouse, Rat <b>N.B.</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.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Mouse monoclonal antibody purified by affinity chromatography on Protein A from tissue culture supernatant.
<b>Buffer Solution</b>	Phosphate buffered saline.
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> ).

## Stabilisers

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**Approx. Protein Concentrations** IgG concentration 0.5 mg/ml

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**Immunogen** Synthetic peptide corresponding to the acetylated N-terminal nonapeptide of beta-cytoplasmic actin coupled to KLH

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## External Database Links

**UniProt:**  
[P60709](#)   [Related reagents](#)

**Entrez Gene:**  
[60](#)   ACTB   [Related reagents](#)

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**Specificity** **Mouse anti Human actin beta antibody, clone 4C2** recognizes cytoplasmic actin beta, a 375 amino acid cytoskeletal protein known also as ACTB and beta actin.

Actins are highly conserved proteins that are involved in cell motility, structure and integrity and are ubiquitously expressed in all eukaryotic cells. Six different isoforms of actin have been identified in mammals ([Vandekerckhove et al. 1978](#)). Mouse anti Human actin beta antibody is highly specific for cytoplasmic actin beta and does not react with other actin isoforms.

Mouse anti Human actin beta antibody recognizes actin beta as a single band of ~42 kDa in a wide range of cell line lysates by western blotting under reducing conditions.

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**Western Blotting** Anti beta actin antibody detects a band of approximately 42 kDa in HeLa cell lysates.

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**References**

1. Sadewasser, A. *et al.* (2019) Anti-Niemann Pick C1 Single-Stranded Oligonucleotides with Locked Nucleic Acid Potently Reduce Ebola Virus Infection *In Vitro* [Molecular Therapy - Nucleic Acids](#). [Epub ahead of print].
2. Tokic, S. *et al.* (2024) The RhoA guanine exchange factor ABR: a glucose-sensitive mediator of actin reorganization in fetoplacental arterial endothelial cells altered by gestational diabetes mellitus. [J Physiol. May 22](#) [Epub ahead of print].

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**Storage** Store undiluted at -20°C, avoiding repeated freeze thaw cycles.

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**Guarantee** 12 months from date of despatch

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**Acknowledgements** PrecisionAb is a trademark of Bio-Rad Laboratories.

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/VMA00048> Antibody (10040)

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**Regulatory** For research purposes only.

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## Related Products

## Recommended Secondary Antibodies

Goat Anti Mouse IgG (H/L) (STAR207...) [HRP](#)

## Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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

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