

# Datasheet: MCA2200T BATCH NUMBER 170897

<b>Description:</b> MOUSE ANTI C-	
Specificity:	C-MYC
Format:	Purified
<b>Product Type:</b>	Monoclonal Antibody
Clone:	9E10
Isotype:	lgG1
Quantity:	20 µg

# **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 (1)	•			Neat - 1/10
Immunohistology - Frozen	•			
Immunohistology - Paraffin	-			
ELISA				
Western Blotting (2)	-			

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) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code <u>BUF09</u>) is recommended for this purpose.
- (2) 9E10 recognizes c-myc under non-reducing conditions

Target Species	Human
Species Cross Reactivity	<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.
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 <sub>3</sub> )
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Synthetic peptide sequence corresponding to the C-terminal region (residues 408-439) of human c-myc conjugated to keyhole limpet hemocyanin.
External Database	
Links	UniProt:  P01106 Related reagents
	Entrez Gene:
	4609 MYC Related reagents
Synonyms	BHLHE39
RRID	AB_566937
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the SP2/0 myeloma cell line.
Specificity	<b>Mouse anti c-myc antibody, clone 9E10</b> detects the p62 <sup>c-myc</sup> proto-oncogene protein, which is involved in the regulation of the cell cycle and cell growth. C-myc is primarily located to the cell nucleus, but has also been shown to localized to the cytoplasm in several cell lines ( <u>Craig et al. 1993</u> ). Overexpression of c-myc has been reported in a wide variety of human cancers (Nesbit et al. 1999).
	Mouse anti c-myc antibody, clone 9E10 recognizes the sequence EQKLISEEDL and may be used to detect proteins and peptides labelled with molecular tags containing this sequence (Hilpert <i>et al.</i> 2001).
Flow Cytometry	Use 10µl of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100µl
References	<ol> <li>Evan, G.I. et al. (1985) Isolation of monoclonal antibodies specific for human c-myc proto-oncogene product. Mol Cell Biol. 5 (12): 3610-6.</li> <li>Spandidos, D.A. et al. (1987) Elevated expression of the myc gene in human benign and malignant breast lesions compared to normal tissue. Anticancer Res. 7 (6): 1299-304.</li> <li>Borodina, I. et al. (2010) Display of wasp venom allergens on the cell surface of Saccharomyces cerevisiae. Microb Cell Fact. 9: 74.</li> <li>Groeger, G. et al. (2007) Co-operative Cdc42 and Rho signalling mediates ephrinB-</li> </ol>

- triggered endothelial cell retraction. Biochem J. 404: 23-9.
- 5. Hilpert, K. *et al.* (2001) Anti-c-myc antibody 9E10: epitope key positions and variability characterized using peptide spot synthesis on cellulose. <u>Protein Eng. 14: 803-6.</u>
- 6. Gohlke, S. *et al.* (2017) *In Vitro* and *In Vivo* Studies on the Structural Organization of Chs3 from *Saccharomyces cerevisiae*. <u>Int J Mol Sci. 18 (4): pii: E702.</u>
- 7. Gray, P. *et al.* (2010) Identification of a novel human MD-2 splice variant that negatively regulates Lipopolysaccharide-induced TLR4 signaling. <u>J Immunol. 184: 6359-66.</u>
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- 9. Tan, P.H. *et al.* (2005) Creation of tolerogenic human dendritic cells via intracellular CTLA4: a novel strategy with potential in clinical immunosuppression. <u>Blood. 106:</u> 2936-43.
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- 11. Rowshanravan, B. *et al.* (2014) RasGAP mediates neuronal survival in *Drosophila* through direct regulation of Rab5-dependent endocytosis. <u>J Cell Sci. 127: 2849-61.</u>
- 12. Taylor K *et al.* (2015) Nanocell targeting using engineered bispecific antibodies. <u>MAbs.</u> 7 (1): 53-65.
- 13. Sharkey, A.M. *et al.* (2015) Tissue-Specific Education of Decidual NK Cells. J. Immunol. 195 (7): 3026-32.
- 14. Frohnert, C. *et al.* (2014) Importin 7 and Nup358 promote nuclear import of the protein component of human telomerase. PLoS One. 9 (2): e88887.
- 15. Hage, N. *et al.* (2015) Improved expression and purification of the Helicobacter pylori adhesin BabA through the incorporation of a hexa-lysine tag. <u>Protein Expr Purif. 106:</u> 25-30.
- 16. Mann, J.K. & Park, S. (2015) Epitope-Specific Binder Design by Yeast Surface Display. Methods Mol Biol. 1319: 143-54.
- 17. Paraskevopoulou, V. *et al.* (2019) Introduction of a C-terminal hexa-lysine tag increases thermal stability of the LacDiNac binding adhesin (LabA) exodomain from *Helicobacter pylori*. Protein Expr Purif. 163: 105446.
- 18. Lim, H.K. *et al.* (2010) Flow cytometric analysis of genetic FRET detectors containing variable substrate sequences. <u>Biotechnol Prog. 26 (6): 1765-71.</u>
- 19. Walker, L.M. *et al.* (2009) Efficient recovery of high-affinity antibodies from a single-chain Fab yeast display library. <u>J Mol Biol. 389 (2): 365-75.</u>
- 20. Matos, J. *et al.* (2013) Cell-cycle kinases coordinate the resolution of recombination intermediates with chromosome segregation. Cell Rep. 4 (1): 76-86.
- 21. Paraskevopoulou, V. *et al.* (2020) Structural and binding characterization of the LacdiNAc-specific adhesin (LabA; HopD) exodomain from *Helicobacter pylori*. <u>Curr Res</u> Struct Biol. 15 Dec [Epub ahead of print].
- 22. Kalusche, S. *et al.* (2020) Lactobacilli Expressing Broadly Neutralizing Nanobodies against HIV-1 as Potential Vectors for HIV-1 Prophylaxis? <u>Vaccines (Basel)</u>. 8 (4) <u>Dec 13</u> [Epub ahead of print].
- 23. Hollandsworth, H.M. *et al.* (2020) Fluorophore-conjugated *Helicobacter pylori* recombinant membrane protein (HopQ) labels primary colon cancer and metastases in orthotopic mouse models by binding CEA-related cell adhesion molecules. <u>Transl Oncol.</u> 13 (12): 100857.

24. Paraskevopoulou, V. *et al.* (2021) Structural and binding characterization of the LacdiNAc-specific adhesin (LabA; HopD) exodomain from *Helicobacter pylori*. <u>Curr Res Struct Biol. 3: 19-29.</u>

25. Low, S. *et al.* (2020) VHH antibody targeting the chemokine receptor CX3CR1 inhibits progression of atherosclerosis. MAbs. 12 (1): 1709322.

#### **Further Reading**

- 1. Nesbit, C. *et al.* (1999) MYC oncogenes and human neoplastic disease. <u>Oncogene. 18:</u> 3004-16.
- 2. Krauß, N. *et al.* (2008) The structure of the anti-c-myc antibody 9E10 Fab fragment/epitope peptide complex reveals a novel binding mode dominated by the heavy chain hypervariable loops. <u>Proteins. 73: 552-65.</u>

## **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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2200T">https://www.bio-rad-antibodies.com/SDS/MCA2200T</a> 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 IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

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