

Datasheet: MCA1710A647

BATCH NUMBER 1706

Description:	MOUSE ANTI HUMAN CD20:Alexa Fluor® 647
Specificity:	CD20
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	2H7
Isotype:	IgG2b
Quantity:	100 TESTS/1ml

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	▪			Neat - 1/10
Immunofluorescence			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species

Human

Species Cross Reactivity

Reacts with: Rhesus Monkey

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 conjugated to Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

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 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
External Database Links	<p>UniProt: P11836 Related reagents</p> <p>Entrez Gene: 931 MS4A1 Related reagents</p>
Synonyms	CD20
RRID	AB_322592
Specificity	<p>Mouse anti Human CD20 antibody, clone 2H7 recognizes the human CD20 cell surface antigen, a 33-37 kDa non-glycosylated phosphoprotein.</p> <p>The CD20 antigen is expressed during pre-B-cell development. It is present on both resting and activated B-cells but is lost prior to terminal B-cell differentiation into plasma cells.</p> <p>The epitope recognized by clone 2H7 has been mapped to the following sequence found in the large extracellular loop of human CD20: YNCEPANPSEKNPST. Furthermore it appears that Mouse anti Human CD20 antibody, clone 2H7 only recognizes human CD20 in its native oligomeric form (Polyak et al. 2002).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood
References	<ol style="list-style-type: none"> Chan, H.T. <i>et al.</i> (2003) CD20-induced lymphoma cell death is independent of both caspases and its redistribution into triton X-100 insoluble membrane rafts. Cancer Res. 63: 5480-9. Cragg, M.S. <i>et al.</i> (2003) Complement-mediated lysis by anti-CD20 mAb correlates with segregation into lipid rafts. Blood. 101: 1045-52. Jaramillo, M.C. <i>et al.</i> (2009) Increased manganese superoxide dismutase expression or treatment with manganese porphyrin potentiates dexamethasone-induced apoptosis in lymphoma cells. Cancer Res. 69: 5450-7. Teeling, J.L. <i>et al.</i> (2006) The biological activity of human CD20 monoclonal antibodies is linked to unique epitopes on CD20. J Immunol. 177 (1): 362-71. Polyak, M.J. <i>et al.</i> (2002) Alanine-170 and proline-172 are critical determinants for extracellular CD20 epitopes; heterogeneity in the fine specificity of CD20 monoclonal antibodies is defined by additional requirements imposed by both amino acid sequence and quaternary structure. Blood. 1;99:3256-62. Greig, B. <i>et al.</i> (2014) Stabilization media increases recovery in paucicellular

cerebrospinal fluid specimens submitted for flow cytometry testing. [Cytometry B Clin Cytom. 86: 135-8.](#)

7. van den Akker, E. *et al.* (2010) The majority of the in vitro erythroid expansion potential resides in CD34(-) cells, outweighing the contribution of CD34(+) cells and significantly increasing the erythroblast yield from peripheral blood samples. [Haematologica. 95: 1594-8.](#)

8. Jaramillo, M.C. *et al.* (2015) Manganese (III) meso-tetrakis N-ethylpyridinium-2-yl porphyrin acts as a pro-oxidant to inhibit electron transport chain proteins, modulate bioenergetics, and enhance the response to chemotherapy in lymphoma cells. [Free Radic Biol Med. 83: 89-100.](#)

9. Cecchinato, V. *et al.* (2017) Impairment of CCR6+ and CXCR3+ Th Cell Migration in HIV-1 Infection Is Rescued by Modulating Actin Polymerization. [J Immunol. 198 \(1\): 184-195.](#)

10. Kohler, S.L. *et al.* (2016) Germinal Center T Follicular Helper Cells Are Highly Permissive to HIV-1 and Alter Their Phenotype during Virus Replication. [J Immunol. 196 \(6\): 2711-22.](#)

11. Grobárová V *et al.* (2016) Quambalarine B, a Secondary Metabolite from *Quambalaria cyanescens* with Potential Anticancer Properties. [J Nat Prod. 79 \(9\): 2304-14.](#)

12. Popov, J. *et al.* (2017) Unique therapeutic properties and preparation methodology of multivalent rituximab-lipid nanoparticles. [Eur J Pharm Biopharm. 117: 256-69.](#)

13. Sieg, M. *et al.* (2019) A New Genotype of Feline Morbillivirus Infects Primary Cells of the Lung, Kidney, Brain and Peripheral Blood. [Viruses. 11 \(2\) Feb 09 \[Epub ahead of print\].](#)

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. This product is photosensitive and should be protected from light.

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

Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1710A647>
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Related Products

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA691A647\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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