Datasheet: MCA1710SBB810

Description:	MOUSE ANTI HUMAN CD20:StarBright Blue 810
Specificity:	CD20
Format:	StarBright Blue 810
Product Type:	Monoclonal Antibody
Clone:	2H7
Isotype:	IgG2b
Quantity:	100 TESTS/0.5ml

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

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

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 StarBright Blue 810 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Blue 810	477	802

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_3) 1% bovine serum albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
External Database Links	**UniProt:** P11836 Related reagents **Entrez Gene:** 931 MS4A1 Related reagents
Synonyms	CD20
Specificity	**Mouse anti Human CD20 antibody, clone 2H7** recognizes the human CD20 cell surface antigen, a 33-37 kDa non-glycosylated phosphoprotein. 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. The epitope recognized by clone 2H7 has been mapped to the following sequence found in the large extracellular loop of human CD20: YNCEPANPSEKNSPST. Furthermore it appears that Mouse anti Human CD20 antibody, clone 2H7 only recognizes human CD20 in its native oligomeric form (Polyak *et al.* 2002).
Flow Cytometry	Use 5µl of the suggested working dilution to label 10^6 cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
References	1. Chan, H.T. *et al.* (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. 2. Cragg, M.S. *et al.* (2003) Complement-mediated lysis by anti-CD20 mAb correlates with segregation into lipid rafts. Blood. 101: 1045-52. 3. Jaramillo, M.C. *et al.* (2009) Increased manganese superoxide dismutase expression or treatment with manganese porphyrin potentiates dexamethasone-induced apoptosis in lymphoma cells. Cancer Res. 69: 5450-7. 4. Teeling, J.L. *et al.* (2006) The biological activity of human CD20 monoclonal antibodies is linked to unique epitopes on CD20. J Immunol. 177 (1): 362-71. 5. Polyak, M.J. & Deans, J.P. (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. 99 (9): 3256-62. 6. Greig, B. *et al.* (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): 146.

Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
Guarantee	12 months from date of despatch
Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
Health And Safety Information	Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA1710SBB810 20471
Regulatory	For research purposes only

Related Products

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: 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
'M411616:221104'

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