

Datasheet: MCA1940SBB580

Description:	MOUSE ANTI HUMAN CD19:StarBright Blue 580
Specificity:	CD19
Format:	StarBright Blue 580
Product Type:	Monoclonal Antibody
Clone:	LT19
Isotype:	IgG1
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		
Product Form	Purified IgG conjugated to StarBright Blue 580 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	StarBright Blue 580	475	582
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
	0.1% Pluronic F68		
	0.1% PEG 3350		
	0.05% Tween 20		

External Database
Links

UniProt:

[P15391](#) [Related reagents](#)

Entrez Gene:

[930](#) CD19 [Related reagents](#)

Specificity

Mouse anti Human CD19 antibody, clone LT19 recognizes human CD19 also known as T-cell surface antigen Leu-12 or B-lymphocyte surface antigen B4. CD19 is a ~95 kDa type I single pass transmembrane glycoprotein expressed on follicular dendritic cells and B-cells during maturation but is lost on development into plasma cells ([de Rie et al. 1989](#)).

CD19 is the broadest lineage specific marker for B cells and functions as a B-cell co-receptor in conjunction with CD21 ([Bradbury et al. 1992](#)), CD9, CD81 and CD82 ([Horváth et al. 1998](#)). CD19 is implicated in the down-regulation of B cell growth and proliferation ([Pezzutto et al. 1987](#)).

Flow Cytometry

Use 5µl of the suggested working dilution to label 10⁶ cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.

References

1. Hughes, G.J. *et al.* (2007) Virus immunocapture provides evidence of CD8 lymphocyte-derived HIV-1 *in vivo*. [AIDS. 21: 1507-13.](#)
2. Allen, J.S. *et al.* (2009) Plasmacytoid dendritic cells are proportionally expanded at diagnosis of type 1 diabetes and enhance islet autoantigen presentation to T-cells through immune complex capture. [Diabetes. 58: 138-45.](#)
3. McIntosh, K. *et al.* (2006) The immunogenicity of human adipose-derived cells: temporal changes *in vitro*. [Stem Cells. 24: 1246-53.](#)
4. Sengstake, S. *et al.* (2006) CD21 and CD62L shedding are both inducible via P2X7Rs. [Int Immunol. 18 \(7\): 1171-8.](#)
5. Villarroel Dorrego, M. *et al.* (2006) Transfection of CD40 in a human oral squamous cell carcinoma keratinocyte line upregulates immune potency and costimulatory molecules. [Br J Dermatol. 154: 231-8.](#)
6. Franz, B. *et al.* (2011) *Ex vivo* characterization and isolation of rare memory B cells with antigen tetramers. [Blood. 118: 348-57.](#)
7. Lacal, P.M. *et al.* (2013) Glucocorticoid-induced tumor necrosis factor receptor family-related ligand triggering upregulates vascular cell adhesion molecule-1 and intercellular adhesion molecule-1 and promotes leukocyte adhesion. [J Pharmacol Exp Ther. 347: 164-72.](#)
8. Franz, B. *et al.* (2011) *Ex vivo* characterization and isolation of rare memory B cells with antigen tetramers. [Blood. 118: 348-57.](#)
9. Girbl, T. *et al.* (2013) CD40-mediated activation of chronic lymphocytic leukemia cells promotes their CD44-dependent adhesion to hyaluronan and restricts CCL21-induced motility. [Cancer Res. 73: 561-70.](#)
10. Hertzberg, L. *et al.* (2010) Down syndrome acute lymphoblastic leukemia, a highly heterogeneous disease in which aberrant expression of CRLF2 is associated with mutated JAK2: a report from the International BFM Study Group. [Blood. 115: 1006-17.](#)
11. Kakko, T. *et al.* (2011) Inflammatory effects of blood leukocytes: association with vascular function in neuropeptide Y proline 7-genotyped type 2 diabetes patients. [Diab](#)

[Vasc Dis Res. 8: 221-8.](#)

12. Dorvignit, D. *et al.* (2012) Expression and biological characterization of an anti-CD20 biosimilar candidate antibody: a case study. [MAbs. 4 \(4\): 488-96.](#)
13. Karlsen, M. *et al.* (2015) TLR-7 and -9 Stimulation of Peripheral Blood B Cells Indicate Altered TLR Signalling in Primary Sjögren's Syndrome Patients by Increased Secretion of Cytokines. [Scand J Immunol. 82 \(6\): 523-31.](#)
14. Clark, L.E. *et al.* (2018) Vaccine-elicited receptor-binding site antibodies neutralize two New World hemorrhagic fever arenaviruses. [Nat Commun. 9 \(1\): 1884.](#)
15. Gu, Y. *et al.* (2019) Defining the structural basis for human alloantibody binding to human leukocyte antigen allele HLA-A*11:01. [Nat Commun. 10 \(1\): 893.](#)
16. Yang, C. *et al.* (2013) B cells promote tumor progression via STAT3 regulated-angiogenesis. [PLoS One. 8 \(5\): e64159.](#)
17. Cook, S.R. *et al.* (2024) Multi-organ immunity on a 3D-printed multi-tissue chip with tubing-free impeller pump. [bioRxiv. Jun 01 \[Epub ahead of print\].](#)

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/MCA1940SBB580>
20471

Regulatory

For research purposes only

Related Products

Recommended Useful Reagents

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

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

North & South America Tel: +1 800 265 7376

Fax: +1 919 878 3751

Email: 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

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](https://www.bio-rad-antibodies.com/datasheets)

'M412214:221110'

Printed on 08 Jul 2024