

Anti-Mouse CD19 Antibody, Clone 6D5, PE



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Antibodies

Rat monoclonal IgG2a antibody
against mouse CD19, PE-conjugated

Catalog #60006PE
#60006PE.1

200 µg 0.2 mg/mL
50 µg 0.2 mg/mL

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

Product Description

The 6D5 antibody reacts with CD19, an ~95 kDa type 1 transmembrane glycoprotein expressed on the surface of B cells throughout all stages of development, from early pre-B cells to plasma cells. Expression is down-regulated but persists in terminally differentiated plasma cells. CD19 is also found on follicular dendritic cells. By associating with CD21 and CD81, CD19 functions as a co-receptor for the B cell receptor and is involved in B cell activation and differentiation. Activation of CD19 is accompanied by phosphorylation of the cytoplasmic domain, which promotes binding to kinases and the induction of intracellular signaling cascades. Mutations in CD19 can result in severe immunodeficiency syndromes. Clone 6D5 recognizes the same epitope as clone ID3 in cross-competition assays.

Target Antigen Name:	CD19
Alternative Names:	B4
Gene ID:	12478
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	6D5
Isotype:	IgG2a, kappa
Immunogen:	Human K562 erythroleukemia cells expressing full-length recombinant mouse CD19
Conjugate:	PE

Applications

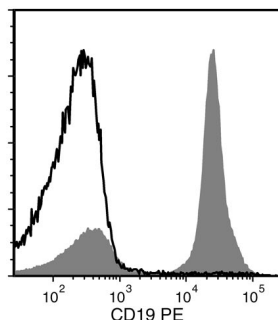
Verified:	CellSep, FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse B Cell Enrichment Kit (Catalog #19754) and EasySep™ Mouse B Cell Isolation Kit (Catalog #19854).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤0.25 µg per 1 x 10 ⁶ cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of C57BL/6 mouse splenocytes labeled with Anti-Mouse CD19 Antibody, Clone 6D5, PE (filled histogram) or a rat IgG2a, kappa PE isotype control antibody (open histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Zhou LJ, et al. Structure of the genes encoding the CD19 antigen of human and mouse B lymphocytes. *Immunogenetics* 35(2): 102-11, 1992
2. Krop I, et al. Self-renewal of B-1 lymphocytes is dependent on CD19. *Eur J Immunol* 26(1): 238-42, 1996 (FA)
3. Cherukuri A, et al. The role of the CD19/CD21 complex in B cell processing and presentation of complement-tagged antigens. *J Immunol* 167(1): 163-72, 2001
4. Inabe K, Kurosaki T. Tyrosine phosphorylation of B-cell adaptor for phosphoinositide 3-kinase is required for Akt activation in response to CD19 engagement. *Blood* 99(2): 584-89, 2002
5. Shoham T, et al. The tetraspanin CD81 regulates the expression of CD19 during B cell development in a postendoplasmic reticulum compartment. *J Immunol* 171(8): 4062-72, 2003.
6. Goodyear CS, et al. In vivo VL-targeted activation-induced apoptotic supraclonal deletion by a microbial B cell toxin. *J Immunol* 172(5): 2870-77, 2004 (FC)
7. Andoniou CE, et al. Interaction between conventional dendritic cells and natural killer cells is integral to the activation of effective antiviral immunity. *Nat Immunol* 6(10): 1011-19, 2005 (FC)
8. Kamimura D, et al. IL-2 in vivo activities and antitumor efficacy enhanced by an anti-IL-2 mAb. *J Immunol* 177(1): 306-14, 2006 (FC)
9. Hayashida K, et al. Syndecan-1 is an in vivo suppressor of Gram-positive toxic shock. *J Biol Chem* 283(29): 19895-903, 2008
10. Charles N, et al. Basophils and the T helper 2 environment can promote the development of lupus nephritis. *Nat Med* 16(6): 701-07, 2010 (FC)
11. Perlot T, Penninger JM. Development and function of murine B cells lacking RANK. *J Immunol* 188(3): 1201-09, 2012
12. White HN, Meng QH. Recruitment of a distinct but related set of VH sequences into the murine CD21hi/CD23 marginal zone B Cell repertoire to that seen in the class-switched antibody response. *J Immunol* 188(1): 287-93, 2012

Copyright © 2014 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, Scientists Helping Scientists and EasySep are trademarks of STEMCELL Technologies Inc. All other trademarks are the property of their respective holders. Alexa Fluor® is a registered trademark of Life Technologies Corporation. This product is licensed for internal research use only and its sale is expressly conditioned on the buyer not using it for manufacturing, performing a service, or medical test, or otherwise generating revenue. For use other than research, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@lifetech.com.

STEMCELL TECHNOLOGIES INC.'S QUALITY MANAGEMENT SYSTEM IS CERTIFIED TO ISO 13485 MEDICAL DEVICE STANDARDS.