

Spark Red™ 718 anti-mouse CD16/32 Antibody

Catalog# / Size	101349 / 25 µg 101350 / 100 µg
Clone	93
Regulatory Status	RUO
Other Names	Fcγ R III/II, Ly-17
Isotype	Rat IgG2a, λ
Description	CD16 is low affinity IgG Fc receptor III (FcR III) and CD32 is FcR II. CD16/CD32 are expressed on B cells, monocytes/macrophages, NK cells, granulocytes, mast cells, and dendritic cells. The Fc receptors bind antibody-antigen immune complexes and mediate adaptive immune responses.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Sorted pre-B cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with Spark Red™ 718 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Spark Red™ 718 has a maximum excitation of 697 nm and a maximum emission of 711 nm.
Excitation Laser	Red Laser (633 nm)
Application Notes	Clone 93 can be used for blocking of CD16/CD32 interactions with the Fc domain of immunoglobulins, but is not the same clone as 2.4G2. The 93 mAb is specific to the common epitope of CD16/CD32. Additional reported applications (for the relevant formats) include: immunoprecipitation ¹ and blocking of Fc-mediated reactions in functional studies ^{2,4,23} . It is useful for blocking non-specific binding of immunoglobulin to Fc receptors. For blocking of Fc receptors in flow cytometric analysis, pre-incubate the cells with purified anti-CD16/CD32 antibody (=1.0 µg per 10 ⁶ cells in 100 µL volume) for 5-10 minutes on ice prior to immunostaining. For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 101330) (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered).

Application References

(PubMed link indicates
BioLegend citation)

1. Personal communication (IP)
2. Oliver AM, *et al.* 1999. *Hybridoma* 18:113. (Block)
3. Brummel R and Lenert P. 2005. *J. Immunol.* 174:2429.
4. Terrazas LI, *et al.* 2005. *Int. J. Parasitol.* 35:1349. (Block)
5. Clements JL, *et al.* 2006. *J. Immunol.* 177:905.
6. Mohamed W, *et al.* 2010. *Infect Immun.* 78:3306. [PubMed](#)
7. Ouchi T, *et al.* 2011. *J. Exp Med.* 208:2607. [PubMed](#)
8. Kmiecik M, *et al.* 2011. *J. Vis. Exp.* 47:2381. [PubMed](#)
9. Yamazaki S, *et al.* 2012. *PLoS One.* 7:e51665. [PubMed](#)
10. Li J, *et al.* 2012. *Arthritis Rheum.* 64:1098. [PubMed](#)
11. Azuma M, *et al.* 2012. *Oncoimmunology.* 1:581. [PubMed](#)
12. Koon HW, *et al.* 2013. *J. Vis. Exp.* 68:4208. [PubMed](#)

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RRID

AB_3698890 (BioLegend Cat. No. 101349)
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Antigen Details

Structure	Ig superfamily, 40-60 kD
Distribution	B cells, monocyte/macrophages, NK cells, neutrophils, mast cells, dendritic cells
Function	Low affinity receptors for IgG
Ligand/Receptor	IgG
Cell Type	B cells, Dendritic cells, Macrophages, Mast cells, Monocytes, Neutrophils, NK cells
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules, Fc Receptors
Antigen References	<ol style="list-style-type: none">1. Barclay AN, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.2. Unkeless JC. 1989. <i>J. Clin. Invest.</i> 83:355.3. Qiu WQ, <i>et al.</i> 1990. <i>Science</i> 248:732.
Gene ID	14130 14131

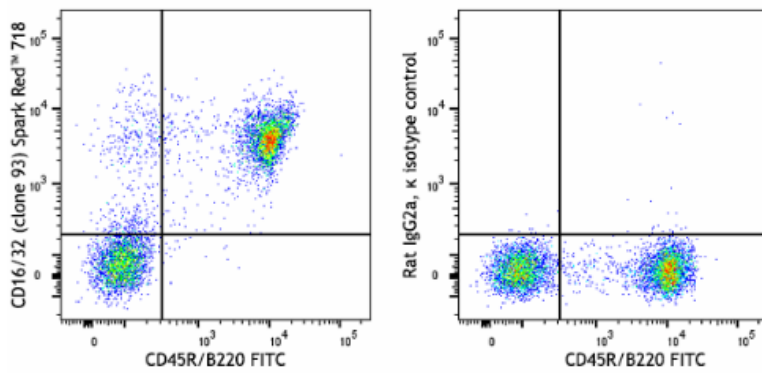
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Biotin anti-mouse CD16/32, FITC anti-mouse CD16/32, PE anti-mouse CD16/32, Purified anti-mouse CD16/32, Ultra-LEAF™ Purified anti-mouse CD16/32, Alexa Fluor® 647 anti-mouse CD16/32, PE/Cyanine7 anti-mouse CD16/32, TruStain FcX™ (anti-mouse CD16/32), PerCP/Cyanine5.5 anti-mouse CD16/32, APC anti-mouse CD16/32, APC/Cyanine7 anti-mouse CD16/32, Brilliant Violet 421™ anti-mouse CD16/32, Brilliant Violet 510™ anti-mouse CD16/32, Purified anti-mouse CD16/32 (Maxpar® Ready), Brilliant Violet 711™ anti-mouse CD16/32, TotalSeq™-A0109 anti-mouse CD16/32, TotalSeq™-B0109 anti-mouse CD16/32, TotalSeq™-C0109 anti-mouse CD16/32, Spark Red™ 718 anti-mouse CD16/32 Antibody

Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse/human CD45R/B220 (clone RA3-6B2) FITC and anti-mouse CD16/32 (clone 93) Spark Red™ 718 (left) or rat IgG2a, κ Spark Red™ 718 isotype control (right).

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