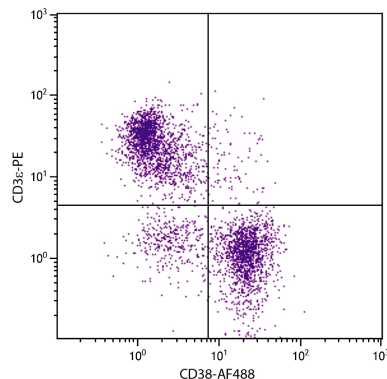




Rat Anti-Mouse CD38

Cat. No.	Format	Size
1640-01	Purified (UNLB) Antibody	0.5 mg
1640-02	Fluorescein (FITC)	0.5 mg
1640-08	Biotin (BIOT)	0.5 mg
1640-09	R-phycoerythrin (PE)	0.1 mg
1640-09L	R-phycoerythrin (PE)	0.2 mg
1640-11	Allophycocyanin (APC)	0.1 mg
1640-13	Spectral Red® (SPRD)	0.1 mg
1640-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1640-26	Pacific Blue™ (PACBLU)	0.1 mg
1640-30	Alexa Fluor® 488 (AF488)	0.1 mg
1640-31	Alexa Fluor® 647 (AF647)	0.1 mg



BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD38-AF488 (SB Cat. No. 1640-30) and Rat Anti-Mouse CD38-PE (SB Cat. No. 1535-09).

Overview

Clone	90
Isotype	Rat IgG _{2a} k
Immunogen	Mouse bone marrow pre-B cells
Specificity	Mouse CD38; Mr 42 kDa
Alternate Name(s)	T10, ADP-ribosyl cyclase, cyclic ADP-ribose hydrolase

Description

Murine CD38, a type II transmembrane glycoprotein, is a bifunctional ectoenzyme capable of catabolizing nicotinamide adenine dinucleotide (NAD⁺) to cyclic ADP-ribose (cADPR), and then hydrolyzing cADPR to adenosine diphosphoribose (ADPR). It is expressed at high levels on the surface of peripheral B-lineage cells and at low density on germinal center B cells from unimmunized mice. It has also been reported to be expressed at moderate levels on NK cells, a proportion of peripheral T cells, and a subpopulation of thymocytes which are mostly TCRαβ⁺, CD4⁺, CD8⁻. Murine CD38 is also expressed by all Mac-1⁺ macrophages in the peritoneal cavities of unimmunized mice but not by unstimulated bone-marrow-derived macrophages. Monoclonal antibodies to CD38 have been shown to induce B and T cell proliferation, protect B cells from apoptosis, and inhibit B lymphopoiesis.

Applications

FC – Quality tested ¹
 IHC-FS – Reported in literature ¹
 IP – Reported in literature ¹
 Stim – Reported in literature ²

Working Dilutions

Flow Cytometry	FITC, BIOT, and AF488 conjugates	≤ 1 μg/10 ⁶ cells
	PE, APC, SPRD, and PACBLU conjugates	≤ 0.2 μg/10 ⁶ cells
	AF647 conjugate	≤ 0.1 μg/10 ⁶ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL	

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red[®] (SPRD) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of PBS. **Aliquot and store at or below -20°C.**
- The Alexa Fluor[®] 488 (AF488), Alexa Fluor[®] 647 (AF647), and Pacific Blue[™] (PACBLU) conjugates are supplied as 0.1 mg in 0.2 mL PBS/NaN₃. Store at 2-8°C.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific (M)SDS.

References

1. Oliver AM, Martin F, Kearney JF. Mouse CD38 is down-regulated on germinal center B cells and mature plasma cells. *J Immunol.* 1997;158:1108-15. (Immunogen, IP, IHC-FS, FC)
2. Etich J, Bergmeier V, Frie C, Kreft S, Bengestrat L, Eming S, et al. PECAM1⁺/Sca1⁺/CD38⁺ vascular cells transform into myofibroblast-like cells in skin wound repair. *PLoS One.* 2013;8(1):e53262. (Stim)

Spectral Red[®] is a registered trademark of Southern Biotechnology Associates, Inc.

Spectral Red[®] is a PE/CY5 tandem conjugate.

Cy[®] is a registered trademark of GE Healthcare.

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