invitrogen™ | MOLECULAR PROBES®

PRODUCT INSERT

RAT anti-MOUSE CD38

Product Code	Form	Volume	Antibody*	Excitation (nm)	Peak Emission (nm)	Matching Isotype Controls	
RM3800	Purified	1.0 ml	200 µg	N/A	N/A	Rat IgG2a Purified	Code R2a00
RM3801	FITC	1.0 ml	100 µg	488	525	Rat IgG2a FITC	Code R2a01
RM3801-3	FITC	3.0 ml	300 µg				
RM3804	R-PE	0.5 ml	50 µg	488	575	Rat IgG2a R-PE	Code R2a04
RM3804-3	R-PE	3.0 ml	300 µg				
RM3815	Biotin	1.0 ml	100 µg	N/A	N/A	Rat IgG2a Biotin	Code R2a15
RM3815-3	Biotin	3.0 ml	300 µg				

PRODUCT DESCRIPTION

Rat monoclonal antibody to mouse CD38

Clone: 90

Isotype: Rat IgG2a

Immunogen: pre-B cells derived from IL-7 dependent cultures of mouse bone marrow cells[1]

Lot No.: See label **Expiration:** See label

Buffer: Phosphate buffered saline (PBS)

Preservatives: 0.1% ***sodium azide.*** Sodium azide is an extremely toxic and dangerous compound particularly when combined with acids or metals. Solutions containing sodium azide should be disposed of properly.

Stabilizer: For conjugated products only, a highly purified grade of BSA has been added as a stabilizing protein.

STORAGE AND HANDLING

Store reagents at 2-8°C. Light exposure should be avoided with fluorochrome conjugated reagents. Use dim light during handling, incubation with cells and prior to analysis. If the reagent is being diluted, it is recommended that only the quantity to be used within one week be diluted.

Using formalin to fix cells following immunofluorescent staining may cause the degradation of tandem fluorochromes. Cells stained with TRI-COLOR®, PE-Cy7, PE-TR or APC-Cy7 should be analyzed by flow cytometry within 18 hours following fixation.

PRODUCT CHARACTERIZATION

Antigen Specificity: The 90 monoclonal antibody (mAb) reacts with mouse CD38 which is expressed on B cells, a subset of peripheral T cells, thymocytes, NK cells, and macrophages. CD38 expression is lower on germinal center B cells and mature plasma cells[1,2]. CD38 exhibits cyclase and glycohydrolase activities[2]. Applications for the 90 mAb include immunostaining for flow cytometry and IHC of acetone-fixed frozen sections[1].

PRODUCT QUALITY CONTROL

Every lot is tested by flow cytometry using freshly harvested mouse splenocytes. From this testing it is recommended that between 0.1 and 0.25µg of antibody be used per 1 x 10^6 cells in a 100µl staining volume. Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for their application.

REFERENCES

1. Oliver, A. M., F. Martin, and J. F. Kearny. 1997. Mouse CD38 is down-regulated on germinal center B cells and mature plasma cells. *J. Immunol.* 158: 1108-1115.
2. Lund, F., N. Solvason, J. C. Grimaldi, R. M. E. Parkhouse, and M. Howard. 1995. Murine CD38: An immunoregulatory ectoenzyme. *Immunol. Today* 16: 469-473.

* The amount of antibody is determined by measuring the optical density using a spectrophotometer. The antibody titer is verified by immunofluorescent staining and flow cytometric analysis.

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