

PRODUCT INSERT
RAT anti-MOUSE CD8a

Product Code	Form	Volume	Excitation (nm)	Peak (Emission) (nm)	Matching Isotype Controls	
MCD0800	Purified	1.0 ml	N/A	N/A	Rat IgG2b Purified	Code R2b00
MCD0826	Alexa Fluor® 405	1.0 ml	405	421	Rat IgG2b Alexa Fluor® 405	Code R2b26
MCD0828	Pacific Blue™	1.0 ml	405	455	Rat IgG2b Pacific Blue™	Code R2b28
MCD0830	Pacific Orange™	1.0 ml	405	551	Rat IgG2b Pacific Orange™	Code R2b30
MCD0820	Alexa Fluor® 488	1.0 ml	488	519	Rat IgG2b Alexa Fluor® 488	Code R2b20
MCD0801	FITC	1.0 ml	488	525	Rat IgG2b FITC	Code R2b01
MCD0801-3	FITC	3.0 ml				
MCD0804	R-PE	0.5 ml	488	575	Rat IgG2b R-PE	Code R2b04
MCD0804-3	R-PE	3.0 ml				
MCD0817	PE-TR†	0.5 ml	488	615	Rat IgG2b PE-TR	Code R2b17
MCD0822	PE-Alexa Fluor® 610	1.0 ml	488	628		
MCD0806	TC‡	0.5 ml	488	670		
MCD0831	PerCP	0.5 ml	488	678		
MCD0818	PE-Cy®5.5	0.5 ml	488	694	Rat IgG2b PE-Cy®5.5	Code R2b18
MCD0824	PE-Alexa Fluor® 700	1.0 ml	488	723		
MCD0812	PE-Cy®7	0.5 ml	488	767		
MCD0805	APC	0.5 ml	600-650	660	Rat IgG2b APC	Code R2b05
MCD0821	Alexa Fluor® 647	1.0 ml	600-650	668	Rat IgG2b Alexa Fluor® 647	Code R2b21
MCD0819	APC-Cy®5.5	0.5 ml	600-650	694		
MCD0829	Alexa Fluor® 700	1.0 ml	630-702	723	Rat IgG2b Alexa Fluor® 700	Code R2b29
MCD0827	APC-Alexa Fluor® 750	1.0 ml	600-650	775	Rat IgG2b APC-Alexa Fluor® 750	Code R2b27

Note: Use a 575 or 585 nm band pass filter for optimal brightness from Pacific Orange™ dye

PRODUCT DESCRIPTION

Rat monoclonal antibody to mouse CD8a (Ly-2)

Clone: 5H10 **Isotype:** Rat IgG2b

Immunogen: Con A-stimulated BALB/c splenic T cells¹

Lot No.: See label **Expiration:** See label: **Concentration:** 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 & 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. It is recommended that cells be analyzed within 18 hours of staining. If the reagent is being diluted, it is recommended that only the quantity to be used within one week be diluted.

PRODUCT CHARACTERIZATION

Antigen Specificity: The 5H10 monoclonal antibody (mAb) recognizes the mouse CD8a chain. The α chain of CD8 associates with the CD8 β chain to form a CD8 α/β heterodimer that is expressed by the majority of thymocytes and by the MHC class I-restricted subset of mature T cells. Mouse CD8a can also form a CD8 α/α chain homodimer on subsets of CD8 positive T cells.

For this reason, antibodies specific for CD8a rather than CD8b are recommended for a rigorous delineation of CD8 positive T cells. The 5H10 mAb has been used in other labs for flow cytometry and inhibition of T cell responses to IL-2¹.

PRODUCT QUALITY CONTROL

Every lot is tested by flow cytometry using freshly harvested mouse splenocytes. Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for each application.

REFERENCES:

1. Takahashi, K., M. Nakata, T. Tanaka, H. Adachi, H. Nakauchi, H. Yagita, and K. Okumura. 1992. CD4 and CD8 regulate interleukin 2 responses of T cells. *Proc. Natl. Acad. Sci. USA* 89: 5557-5561.

† TR, Texas Red®

‡ TC, TRI-COLOR®, PE-Cy®5

The efficiency of energy transfer in tandem dyes can be significantly decreased by exposure to visible light. We recommend that longer wavelength fluorochrome conjugates, e.g. PE-Cy®7, PE-Alexa Fluor® 700, be protected from light during staining and while awaiting analysis, e.g. cover with aluminum foil.

FIX & PERM® and **COMBI-IC** reagents are produced for Invitrogen by An Der Grub Bio Research GmbH, Austria.

The Texas Red®, Alexa Fluor® and Pacific Blue™ dye conjugates in this product are sold under license from Molecular Probes, Inc., for research use only or as analyte specific reagents, except for use in combination with microarrays or high content screening, and are covered by pending and issued patents.

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Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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