invitrogen™ | MOLECULAR PROBES®

PRODUCT INSERT

RAT anti-MOUSE CD90 (Thy-1)

Product	Form	Volume	Antibody*	Excitation (nm)	Peak Emission (nm)	Matching Isotype Controls
MCD9001	FITC	1.0 ml	500 µg	488	525	None available
MCD9004	R-PE	1.0 ml	100 µg	488	575	None available

PRODUCT DESCRIPTION

Rat monoclonal antibody to mouse CD90 (Thy-1)

Clone: G7

Isotype: Rat IgG2cκ

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: Sucrose

STORAGE & HANDLING

Store reagents at 2-8°C. Do not freeze! Light exposure should be avoided for 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: CD90/Thy-1, a GPI-anchored molecule and one of the smallest members of the immunoglobulin superfamily of cell surface receptors, consists of a single V-set domain.[1-4] It is expressed on thymocytes, peripheral T lymphocytes, some intraepithelial T lymphocytes and neurons of all mouse strains.[1,2] MAb G7 stimulates T-cell proliferation and IL-2 secretion, via signalling through the T-cell receptor/CD3 complex.[1,5-7] The MAb has also been reported to promote apoptosis of thymocytes and CTL clones,4,7 and to mediate adhesion of thymocytes to thymic stroma.[8]

Research Applications:

- Flow cytometry[1]
- In vitro T cell activation[1,5,6,9]
- Induction of apoptosis[4,7]

PRODUCT QUALITY CONTROL

To ensure lot-to-lot consistency, each batch of monoclonal antibody is tested by flow cytometry to conform to characteristics of a standard reference reagent. From this testing it is recommended that between 0.1µg and 0.2 µg of antibody be used per 1 x 10^6 cells in a 100 µl staining volume. Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for each application.

* 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.

REFERENCES:

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8. He, H.-T., P. Naquet, D. Caillol, and M. Pierres. 1991. J. Exp. Med. 173:515.
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Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: techsupport@invitrogen.com

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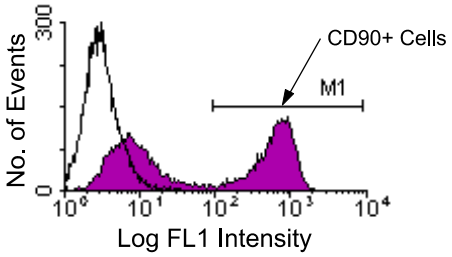

Mouse CD90 (Thy-1) FITC

BALB/c mesenteric lymph node cells were stained with rat anti-mouse CD90-FITC. Lymphocytes were then gated and analyzed on a FACScan™ flow cytometer (BDIS, San Jose, CA). The negative peak represents unstained cells.

Note: Flow cytometric data shown may not necessarily have been generated using the enclosed lot of reagent. For this reason, and due to differences in flow cytometers and cytometer settings, results may vary from those illustrated above. It is suggested that investigators titrate reagents to determine optimal conditions for use in their systems.