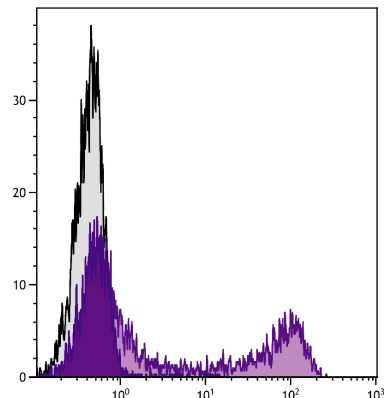




Rat Anti-Mouse CD90

Cat. No.	Format	Size
1740-01	Purified (UNLB)	0.5 mg
1740-02	Fluorescein (FITC)	0.5 mg
1740-02S	Fluorescein (FITC)	0.1 mg
1740-08	Biotin (BIOT)	0.5 mg
1740-09	R-phycoerythrin (PE)	0.1 mg
1740-11	Allophycocyanin (APC)	0.1 mg
1740-13	Spectral Red® (SPRD)	0.1 mg
1740-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg



BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD90-UNLB (SB Cat. No. 1740-01) followed by Mouse Anti-Rat IgG_{2c}-FITC (SB Cat. No. 3075-02).

Overview

Clone	G7
Isotype	Rat (Lewis) IgG _{2c} κ
Immunogen	Mouse T cell hybridoma C6/G8
Specificity	Mouse CD90 (Thy-1.1 & Thy-1.2 alloantigens/Thy-1 epitope region A); Mr 28-32 kDa
Alternate Name(s)	Thy-1

Description

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. It is expressed on thymocytes, peripheral T lymphocytes, some intraepithelial T lymphocytes, and neurons of all mouse strains. The monoclonal antibody G7 stimulates T-cell proliferation and IL-2 secretion via signaling through the T-cell receptor/CD3 complex. G7 has also been reported to promote apoptosis of thymocytes and CTL clones and to mediate adhesion of thymocytes to thymic stroma.

Applications

FC – Quality tested ^{1,6-8}
 IHC-PS – Reported in literature ⁴
 IP – Reported in literature ¹
 Stim – Reported in literature ¹
 Activ – Reported in literature ^{1,5}
 Apop – Reported in literature ^{2,3}

Working Dilutions

Flow Cytometry	FITC and BIOT conjugates	≤ 1 μg/10 ⁶ cells
	SPRD and APC conjugates	≤ 0.2 μg/10 ⁶ cells
	PE 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 or 0.1 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) and allophycocyanin (APC) conjugates are 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.**
- 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 SDS.

References

1. Gunter KC, Malek TR, Shevach EM. T cell-activating properties of an anti-Thy-1 monoclonal antibody. Possible analogy to OKT3/Leu-4. J Exp Med. 1984;159:716-30. (Immunogen, FC, IP, Stim, Activ)
2. Ucker DS, Meyers J, Obermiller PS. Activation-driven T cell death. II. Quantitative differences alone distinguish stimuli triggering nontransformed T cell proliferation or death. J Immunol. 1992;149:1583-92. (Apop)
3. Hueber A, Raposo G, Pierres M, He H. Thy-1 triggers mouse thymocyte apoptosis through a bcl-2-resistant mechanism. J Exp Med. 1994;179:785-96. (Apop)
4. Whiteland JL, Nicholls SM, Shimeld C, Easty DL, Williams NA, Hill TJ. Immunohistochemical detection of T-cell subsets and other leukocytes in paraffin-embedded rat and mouse tissues with monoclonal antibodies. J Histochem Cytochem. 1995;43:313-20. (IHC-PS)
5. Kojima H, Toda M, Sitkovsky MV. Comparison of Fas- versus perforin-mediated pathways of cytotoxicity in TCR- and Thy-1-activated murine T cells. Int Immunol. 2000;12:365-74. (Activ)
6. Kucic T, Copland IB, Cuerquis J, Coutu DL, Chalifour LE, Gagnon RF, et al. Mesenchymal stromal cells genetically engineered to overexpress IGF-I enhance cell-based gene therapy of renal failure-induced anemia. Am J Physiol Renal Physiol. 2008;295:F488-96. (FC)
7. Eliopoulos N, Stagg J, Lejeune L, Pommey S, Galipeau J. Allogeneic marrow stromal cells are immune rejected by MHC class I- and class II-mismatched recipient mice. Blood. 2005;106:4057-65. (FC)
8. Xiao J, Angsana J, Wen J, Smith SV, Park PW, Ford ML, et al. Syndecan-1 displays a protective role in aortic aneurysm formation by modulating T cell-mediated responses. Arterioscler Thromb Vasc Biol. 2012;32:386-96. (FC)

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

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