

Technical Data Sheet

Purified NA/LE Rat Anti-Mouse CD90

Product Information

Material Number:	553015
Alternate Name:	Thy-1
Size:	0.5 mg
Concentration:	1.0 mg/ml
Clone:	G7
Immunogen:	Mouse T-cell hybridoma C 6/68
Isotype:	Rat (LEW) IgG2c, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 μ m sterile filtered. Endotoxin level is ≤ 0.01 EU/ μ g (≤ 0.001 ng/ μ g) of protein as determined by the LAL assay.

Description

The G7 antibody reacts with the Thy-1.1 and Thy-1.2 alloantigens (CD90.1 and CD90.2, respectively) on thymocytes, peripheral T lymphocytes, some intraepithelial T lymphocytes (IEL, DEC), and neurons, but not B lymphocytes, of all mouse strains. CD90 is a GPI-anchored membrane glycoprotein of the Ig superfamily which is involved in signal transduction. In addition, there is evidence that CD90 mediates adhesion of thymocytes to thymic stroma. Soluble G7 mAb stimulates murine T-cell proliferation and IL-2 secretion, *via* signalling through the TCR/CD3 complex. mAb G7 has been reported to promote apoptosis of thymocytes and CTL clones, as determined by morphological and biochemical criteria. The Thy-1-triggered thymocyte death was found to be developmentally regulated and targeted mainly within the CD4+CD8+CD3- and CD4+CD8+CD3lo cultured immature thymocytes. G7 antibody does not react with Thy-1 (CD90) on rat thymocytes.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-frozen	Tested During Development
(Co)-stimulation	Reported
Activation	Reported
Apoptosis	Reported
Immunohistochemistry-zinc-fixed	Reported
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended

Recommended Assay Procedure:

Other reported applications include *in vitro* T-cell activation induction of apoptosis, and immunohistochemical staining (IHC) of acetone-fixed frozen and zinc-fixed paraffin-embedded sections. IHC of formalin-fixed paraffin-embedded sections is not recommended. For IHC of tissue expressing the Thy-1.2 alloantigen, investigators are encouraged to use Rat Anti-Mouse CD90.2 mAb 53-2.1 (Cat. no. 550543).

Suggested Companion Products

Catalog Number	Name	Size	Clone
550543	Purified Rat Anti-Mouse CD90.2	1.0 ml	53-2.1
554016	FITC Goat Anti-Rat Ig	0.5 mg	Polyclonal
553981	Purified NA/LE Rat IgG2c, κ Isotype Control	0.5 mg	A23-1

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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Williams AF, Gagnon J. Neuronal cell Thy-1 glycoprotein: homology with immunoglobulin. *Science.* 1982; 216(4547):696-703. (Biology)