

## Technical Data Sheet

**FITC Mouse Anti-Rat CD90/Mouse CD90.1****Product Information**

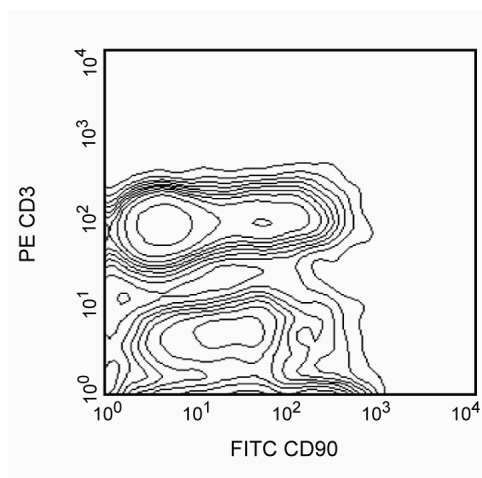
<b>Material Number:</b>	<b>554897</b>
<b>Alternate Name:</b>	Rat Thy-1; Mouse Thy-1.1
<b>Size:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Clone:</b>	OX-7
<b>Immunogen:</b>	Rat thymocyte Thy-1 antigen
<b>Isotype:</b>	Mouse (BALB/c) IgG1, $\kappa$
<b>Reactivity:</b>	QC Testing: Rat Tested During Development: Mouse Reported: Guinea Pig, Rabbit
<b>Storage Buffer:</b>	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

**Description**

CD90 (Thy-1) is a GPI-anchored membrane glycoprotein of the Ig superfamily which is involved in signal transduction. The OX-7 clone reacts with rat CD90 reported to be expressed by hematopoietic stem cells, early myeloid & erythroid cells, immature B lymphocytes in the bone marrow & peripheral lymphoid organs, thymocytes, recent thymic emigrants (a subset of CD45RC- peripheral T lymphocytes), neurons, glomerular mesangial cells, endothelium at inflammatory sites, mast cells, and dendritic cells. Rat dendritic epidermal T cells (DEC) have been reported to be CD90 (Thy-1) negative, unlike those of the mouse.

The OX-7 clone has been reported to crossreact with the mouse CD90.1 (Thy-1.1) alloantigen of the AKR/J and PL strains, but not CD90.2 (Thy-1.2) found on many mouse strains. In the mouse, CD90 is found on thymocytes, most peripheral T lymphocytes, some intraepithelial T lymphocytes (IEL, DEC), hematopoietic stem cells, and neurons, but not B lymphocytes. In addition, there is evidence that CD90 mediates adhesion of mouse thymocytes to mouse thymic stroma. The OX-7 clone has also been reported to crossreact with rabbit and guinea pig thymus, brain, and intestine.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



**Two-color analysis of the expression of CD90 on rat splenic leukocytes.** Lewis splenocytes were simultaneously stained with FITC mouse anti-rat CD90/mouse CD90.1 (clone OX-7) and PE mouse anti-rat CD3 (clone G4.18) (Cat. No. 554833) monoclonal antibodies. Flow cytometry was performed on a BD FACScan™ instrument.

**Preparation and Storage**

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed.

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## Application Notes

### Application

Flow cytometry	Routinely Tested
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### Suggested Companion Products

Catalog Number	Name	Size	Clone
554833	PE Mouse Anti-Rat CD3	0.2 mg	G4.18
550616	FITC Mouse IgG1, $\kappa$ Isotype Control	0.25 mg	MOPC-31C

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

### References

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Paul LC, Rennke HG, Milford EL, and Carpenter CB. Thy-1.1 in glomeruli of rat kidneys. *Kidney Int*. 1984; 25:771-777. (Clone-specific: Electron microscopy, Immunohistochemistry)

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