

Technical Data Sheet

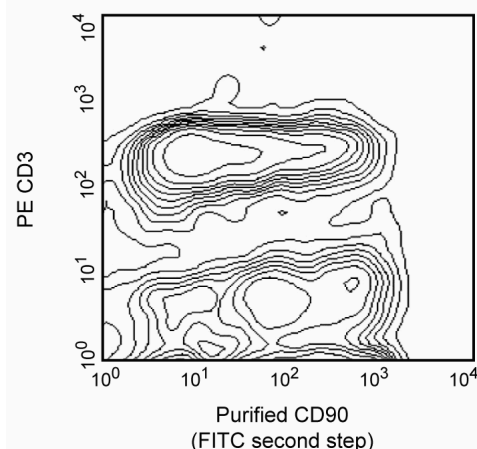
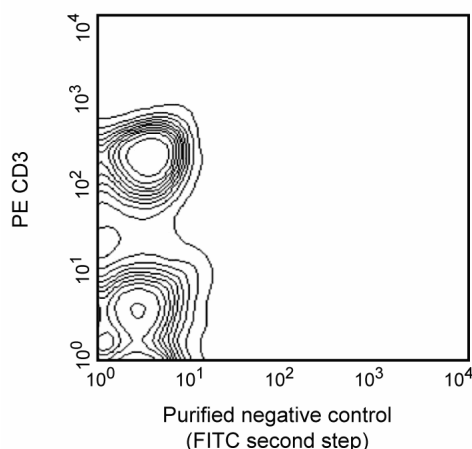
Purified Mouse Anti-Rat CD90/Mouse CD90.1**Product Information**

Material Number:	554895
Alternate Name:	Rat Thy-1; Mouse Thy-1.1
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	OX-7
Immunogen:	Rat thymocyte Thy-1 antigen
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Rat Tested During Development: Mouse Reported: Guinea Pig, Rabbit
Storage Buffer:	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.



Two color analysis of the expression of CD90 on rat splenic leukocytes. Lewis splenocytes were simultaneously stained with PE mouse anti-rat CD3 (clone G4.18) (Cat. No. 554833) and purified mouse anti-rat CD90/mouse CD90.1 (clone OX-7) (right panel), followed by FITC rat anti-mouse IgG1 (clone A85-1) (Cat. No. 553443). Flow cytometry was performed on a BD FACScan™ instrument.

Preparation and Storage

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

Store undiluted at 4°C.

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Application Notes

Application

Flow cytometry	Routinely Tested
Immunohistochemistry-zinc-fixed	Tested During Development
Immunohistochemistry-frozen	Reported
Electron microscopy	Reported
Immunoprecipitation	Reported
Western blot	Reported
Immunohistochemistry-formalin (antigen retrieval required)	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
554833	PE Mouse Anti-Rat CD3	0.2 mg	G4.18
553443	FITC Rat Anti-Mouse IgG1	0.5 mg	A85-1
557273	Purified Mouse IgG1, κ Isotype Control	0.5 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 for technical protocols.
3. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
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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