Datasheet for ABIN967474

anti-CD90 antibody

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Overview

Quantity:	0.5 mg
Target:	CD90 (THY1)
Reactivity:	Mouse, Rat, Guinea Pig, Rabbit
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD90 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunoprecipitation (IP), Immunohistochemistry (Zinc-fixed Sections) (IHC (zinc)), Immunohistochemistry (Formalin-fixed Sections) (IHC (f))

Product Details

Brand:	BD Pharmingen™
Immunogen:	Rat thymocyte Thy-1 antigen
Clone:	OX-7
Isotype:	IgG1 kappa
Cross-Reactivity:	Mouse (Murine), Guinea Pig, Rabbit
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us 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

Product Details

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

Target Details

Target:	CD90 (THY1)
Alternative Name:	CD90.1 (THY1 Products)
Background:	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. Synonyms: Rat Thy-1, Mouse Thy-1.1
Pathways:	Cell-Cell Junction Organization

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

Product cited in:

Liu, Zhang, Jenkins, MacPherson: "Dendritic cell heterogeneity in vivo: two functionally different dendritic cell populations in rat intestinal lymph can be distinguished by CD4 expression." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 161, Issue 3, pp. 1146-55, (1998) (PubMed).

Chen-Woan, Delaney, Fournier, Wakizaka, Murase, Fung, Starzl, Demetris: "In vitro characterization of rat bone marrow-derived dendritic cells and their precursors." in: **Journal of leukocyte biology**, Vol. 59, Issue 2, pp. 196-207, (1996) (PubMed).

Dráberová, Amoui, Dráber: "Thy-1-mediated activation of rat mast cells: the role of Thy-1 membrane microdomains." in: **Immunology**, Vol. 87, Issue 1, pp. 141-8, (1996) (PubMed).

Elbe, Kilgus, Hünig, Stingl: "T-cell receptor diversity in dendritic epidermal T cells in the rat." in: **The Journal of investigative dermatology**, Vol. 102, Issue 1, pp. 74-9, (1994) (PubMed).

He, Naquet, Caillol, Pierres: "Thy-1 supports adhesion of mouse thymocytes to thymic epithelial cells through a Ca2(+)-independent mechanism." in: **The Journal of experimental medicine**, Vol. 173, Issue 2, pp. 515-8, (1991) (PubMed).

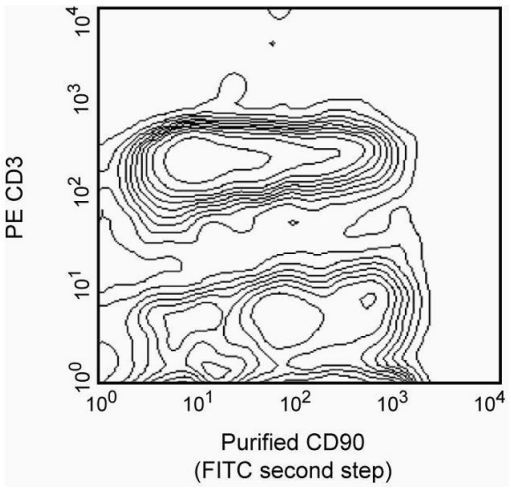
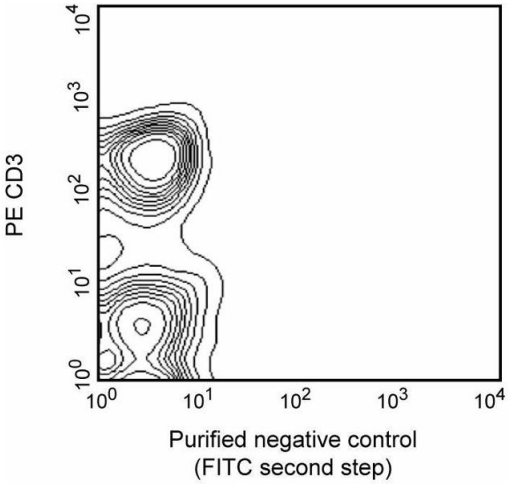


Image 1. Stained with purified mouse anti-rat CD90/mouse CD90.1 (clone OX-7)



Flow Cytometry

Image 2. 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) and purified mouse anti-rat CD90/mouse CD90.1 (clone OX-7) (Second Panel), followed by FITC rat anti-mouse IgG1 (clone A85-1). Flow cytometry was performed on a BD FACScan™ instrument.