Technical Data Sheet

PE Rat Anti-Mouse CD72 b and c Alloantigens

Product Information

Material Number:	**550269**
Alternate Name:	Lyb-2.2 and Lyb-2.3
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	JY/93
Immunogen:	BALB/c spleen cells
Isotype:	Rat IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The JY/93 antibody reacts with Lyb-2.2 and Lyb-2.3 (CD72 b and c alloantigens, respectively). CD72 is a 45-kDa type-II membrane protein containing a C-type lectin-like domain, an ITIM and ITIM-like sequence in the cytoplasmic tail. Recently, CD72 has been shown to negatively regulate B-cell receptor signaling. Analysis of CD72-deficient mice supports these results and shows that CD72 is involved in B-cell development. CD72-stimulated B cells show a transient association of CD19 with CD72, as well as an increase in Tyr-phosphorylation of CD19. CD72 is reported to be a ligand for CD5,5 although this is controversial. The CD72 alloantigens Lyb-2.1 (originally identified as Ly-m19.2), Lyb-2.2 (originally identified as Ly-32.2), Lyb-2.3, and Lyb-2.4 are encoded by the Cd72[a], Cd72[b], Cd72[c] , and Cd72[d] alleles, respectively. Lyb-2.2 (CD72b) is expressed on B lymphocytes, a subset of peripheral T cells, activated thymocytes, and activated T lymphocytes in A, BALB/c, CBA/H, CBA/N, C3H/He, C57BL, NZB, NZW, PL, and 129 strains. Moreover, expression of CD72b on T cells is dominant in F1 hybrid mice, and its level of expression increases upon activation. Lyb-2.3 (CD72c) is expressed on B cells of AKR, CE, SJL, and other mouse strains. Although staining of a small percentage of splenic T cells has been detected in CD72c mice, northern blot analysis has shown no expression of CD72c in T lymphocytes of these mice. JY/93 mAb does not stain cells from CD72a mice (*e.g.*, CBA/J, DBA/2, SWR), and it does not stain resting thymocytes, splenic CD11b-positive cells, or NK cells. Five serological specificities of CD72 alloantigens have been described and the nomenclature CD72.1, CD72.2, CD72.3, CD72.4, and CD72.5 proposed.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:
Mouse Fc Block™ should not be used when staining with JY/93 mAb as significant staining reduction may be observed.

Suggested Companion Products

Catalog Number	Name	Size	Clone
553925	PE Rat IgG1, κ Isotype Control	0.1 mg	R3-34

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. 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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