

Technical Data Sheet

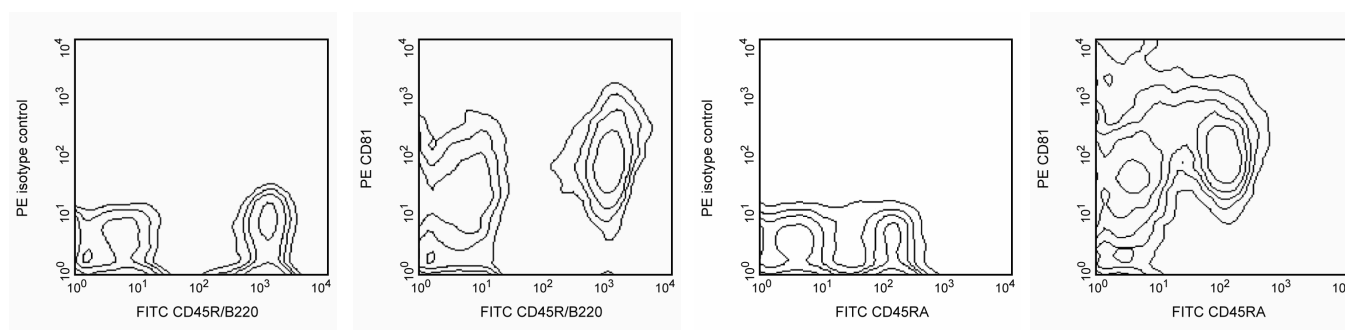
PE Hamster Anti-Mouse/Rat CD81

Product Information

Material Number:	559519
Alternate Name:	TAPA-1; Tspan28; Tapa1; Tapa-1; Target of the antiproliferative antibody 1;
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	Eat2
Immunogen:	CD81+ mouse B lymphoma 38C13
Isotype:	Armenian Hamster IgG, κ
Reactivity:	QC Testing: Mouse and Rat
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The Eat2 antibody reacts with CD81, a 26-kDa nonglycosylated member of the transmembrane 4 integral membrane protein superfamily, expressed by many types of cells. For example, CD81 participates with CD19 and CD21 in the signal transduction complex associated with the B-cell receptor on human B lymphocytes and with the CD4 and CD8 co-receptors on human thymocytes and T lymphocytes. In mouse fetal thymic organ culture, interactions of immature thymocytes with CD81 expressed by thymic stromal cells are required to induce development of T cells with $\alpha\beta$ T-cell receptors. Furthermore, CD81 has been shown to play a role in the regulation of rat mastcell degranulation. Despite its important roles in the immune response and wide tissue distribution, CD81-deficient mice are born without obvious developmental abnormalities. However, these mice have abnormal immune responses, and impaired fertility. Eat2 mAb cross-reacts with the rat CD81 antigen.



Two-color analysis of the expression of CD81 on mouse and rat splenocytes. C57BL/6 splenocytes were simultaneously stained with FITC Rat anti-Mouse CD45R/B220 (Cat. no. 553087/553088, First and second panels) and PE Hamster IgG1 κ Isotype Control (Cat. no. 553972, First panel) or PE Hamster Anti-Mouse/Rat CD81 (Cat. No. 559519; Second panel) monoclonal antibodies. Similarly, LOU splenocytes were simultaneously stained with FITC Mouse anti-Rat CD45RA (Cat. No. 554883, Third and last panels) and PE Hamster IgG1 κ Isotype Control (Cat. no. 553972; Third panel) or PE Hamster anti-Mouse/Rat CD81 (Cat. No. 559519; Last panel) monoclonal antibodies. Flow cytometry was performed on a BD FACScan™ Flow Cytometry System (BD Biosciences, San Jose, CA.)

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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
553087	FITC Rat Anti-Mouse CD45R/B220	0.1 mg	RA3-6B2
553972	PE Hamster IgG1 κ Isotype Control	0.1 mg	A19-3
554883	FITC Mouse Anti-Rat CD45RA	0.5 mg	OX-33
554656	Stain Buffer (FBS)	500 ml	(none)

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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. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.
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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. An isotype control should be used at the same concentration as the antibody of interest.

References

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