CELL LAB Hamster Anti-Mouse CD81/TAPA-1

Cat. No.	Form	Quantity
732322	Purified (UNLB) Antibody	0.5 mg
732323	Fluorescein (FITC) Conjugate	0.5 mg
732324	Biotin (BIOT) Conjugate	0.5 mg
732325	Phycoerythrin (PE) Conjugate	0.1 mg

For Laboratory Use Only

DESCRIPTION

Clone: 2F7
Isotype: Armenian Hamster IgG, group 3, κ
Immunogen: Mouse epithelial cell line PAM212
Specificity: Mouse CD81 (Mr 25 kDa), a member of the transmembrane 4 integral membrane protein family

CD81/TAPA-1 is an integral membrane protein expressed on a variety of cell types, and has a high degree of sequence homology between human and mouse.[1] CD81 is expressed on thymic stromal cells where it plays an important role in the transition of γδ+ T cells to more mature T cells with αβ T cell receptors.[2] Immunohistochemical staining has revealed that its expression is localized to the subcapsular region of the thymus and, specifically, on cells that have distinct clustering patterns. It has been speculated that the ligand for CD81 is the pre-T cell receptor, which is composed of a TCR β chain and glycoprotein pTα.[2] Monoclonal antibody 2F7 can block thymocyte interaction with CD81 in vitro.[2]

APPLICATIONS

- Identification and enumeration of $CD81^+$ cells by flow cytometry[2]
- Identification of $CD81^+$ cells in acetone-fixed, frozen sections[2]
- Immunoprecipitation[2]
- *In vitro* blocking of thymocyte interactions with CD81[2]

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of product is tested to conform with characteristics of a standard reference reagent using flow cytometry.

Flow Cytometry:	FITC conjugate	≤1 μg/10^6 cells
	BIOT conjugate	≤1 μg/10^6 cells
	PE conjugate	≤0.2 μg/10^6 cells

Other Applications: Since applications vary, determine the optimum working dilution of the product that is appropriate for your specific needs.

HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. No preservatives or amine-containing buffer salts added.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3.
- The Phycoerythrin (PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN_3 and a stabilizing agent.
- Protect fluorochrome-conjugated forms from light. Do not freeze.
- Reagent is stable until the expiration date on the vial when stored at 2-8°C.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Minimize exposure of reagent to light during storage or incubation.
5. Avoid microbial contamination of reagent or erroneous results may occur.
6. Use Good Laboratory Practice (GLP) when handling this reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.
9. Contains sodium azide. Sodium azide under acidic conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, immediately wash excessively with water.

TRADEMARKS

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For additional information or if damaged product is received, contact your local Beckman Coulter Representative.

REFERENCES

1. Andria ML, et al. 1991. Genomic organization and chromosomal localization of the TAPA-1 gene. *J Immunol,* 147:1030.
2. Boismenu R, Rhein M, Fischer WH, and Harven WL. 1996. A role for CD81 in early T cell development. *Science*, 271:198.

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