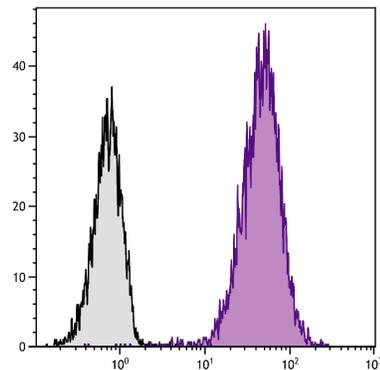




Hamster Anti-Mouse CD81

| Cat. No. | Format | Size |
|----------|-----------------------------------|--------|
| 1825-01 | Purified (UNLB) | 0.5 mg |
| 1825-02 | Fluorescein (FITC) | 0.5 mg |
| 1825-08 | Biotin (BIOT) | 0.5 mg |
| 1825-09 | R-phycoerythrin (PE) | 0.1 mg |
| 1825-11 | Allophycocyanin (APC) | 0.1 mg |
| 1825-14 | Low Endotoxin, Azide-Free (LE/AF) | 0.5 mg |



Chinese hamster ovary cell line CHO-K1 and BALB/cAnN mouse B lymphocyte cell line A20 were stained with Hamster Anti-Mouse CD81-APC (SB Cat. No. 1825-11).

Overview

| | |
|--------------------------|-------------------------------------|
| Clone | 2F7 |
| Isotype | Hamster (Armenian) IgG ₃ |
| Immunogen | Mouse epithelial cell line PAM212 |
| Specificity | Mouse CD81; Mr 26 kDa |
| Alternate Name(s) | TAPA-1 |

Description

CD81, also known as 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. CD81 is expressed on thymic stromal cells where it plays an important role in the transition of $\gamma\delta^+$ T cells to more mature T cells with $\alpha\beta$ T cell receptors. 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 pT α . The monoclonal antibody 2F7 can block thymocyte interaction with CD81 *in vitro*.

Applications

FC – Quality tested ^{1,3}
 IHC – Reported in literature ¹
 ICC – Reported in literature ⁵
 IP – Reported in literature ¹
 Block – Reported in literature ¹⁻⁴
 Costim – Reported in literature ²

Working Dilutions

| | | |
|---|--------------------------|-----------------------------------|
| Flow Cytometry | FITC and BIOT conjugates | $\leq 1 \mu\text{g}/10^6$ cells |
| | PE and APC conjugates | $\leq 0.2 \mu\text{g}/10^6$ cells |
| For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL . | | |

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

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Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) and allophycocyanin (APC) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Boismenu R, Rhein M, Fischer WH, Havran WL. A role for CD81 in early T cell development. *Science*. 1996;271:198-200. (Immunogen, FC, IP, IHC, Block)
2. Takeda Y, He P, Tachibana I, Zhou B, Miyado K, Kaneko H, et al. Double deficiency of tetraspanins CD9 and CD81 alters cell motility and protease production of macrophages and causes chronic obstructive pulmonary disease-like phenotype in mice. *J Biol Chem*. 2008;283:26089-97. (Block, Costim)
3. Tachibana I, Hemler ME. Role of transmembrane 4 superfamily (TM4SF) proteins CD9 and CD81 in muscle cell fusion and myotube maintenance. *J Cell Biol*. 1999;146:893-904. (FC, Block)
4. Chang Y, Finnemann SC. Tetraspanin CD81 is required for the $\alpha\beta 5$ -integrin-dependent particle-binding step of RPE phagocytosis. *J Cell Sci*. 2007;120:3053-63. (Block)
5. Kelić S, Levy S, Suarez C, Weinstein DE. CD81 regulates neuron-induced astrocyte cell-cycle exit. *Mol Cell Neurosci*. 2001;17:551-60. (ICC)