FITC Anti-Mouse CD81 (TAPA-1)
Monoclonal Antibody

CL8981F
CL8981F-3
LOT: 158132

DESCRIPTION:
Cedarlane’s CL8981F reacts with the extracellular loops of murine CD81 (TAPA-1) molecule. As a member of the tetraspanin superfamily of cell-surface proteins, CD81 has been linked to the control of cell proliferation, adhesion and motility. CD81 is expressed in higher levels on resting murine B cells than on resting T cells and is functionally active on B cells as it induces homotypic adhesion of B lymphocytes. Unlike human CD81, which is expressed equally on all thymocytes, murine CD81 is upregulated on CD4+CD8+ thymocytes, then down-regulated again on mature single-positive thymocytes. Murine dendritic cells, splenic macrophages and NK cells all express very high levels of CD81. CD81 has also been involved in the induction of IL-4 secretion from T cells during Th2 immune responses. It has been reported that CD81 expression can also be induced in mature T cells upon activation. This anti-CD81 mAb has been shown to decrease the proliferation of LPS stimulated CD81+/+ B cells to levels similar to that of CD81−/− B cells.

Applications include: flow cytometry

PRESENTATION:
100 µg (CL8981F) or 300 µg (CL8981F-3) FITC conjugated Ig buffered in PBS, 0.02% NaN₃ and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/mL.

STORAGE/STABILITY:
Store at 4°C. For long term storage, aliquot and freeze unused portion at -20°C in volumes appropriate for single usage. Avoid freeze/thaw cycles. Avoid prolonged exposure to light.

SPECIFICATIONS:
Clone: Eat2
Specificity: Mouse CD81 (TAPA-1)
Ig Class: Hamster IgG
Format: FITC conjugated Ig buffered in PBS, 0.02% NaN₃ and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml.
Antibody Concentration: 0.1 mg/ml
FLOW CYTOMETRY ANALYSIS:

Method:

1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte®-M cell separation medium (CL5030).
2. Wash 2 times.
3. Resuspend the cells to a concentration of 2×10^7 cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1x10^6 cells, representing 1 test).
4. To each tube, add ~1.0 µg* of CL8981F.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C. (It is recommended that the tubes be protected from light since most fluorochromes are light sensitive).
7. Wash 2 times at 4°C.
8. Resuspend the cell pellet in 50 µl ice cold media B.
9. Transfer to suitable tubes for flow cytometric analysis containing 15 µl of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

Media:

A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100 µl of 2M sodium azide in 100 mls).
B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 µl of 2M sodium azide in 100 mls).

RESULTS:

Tissue distribution by Flow Cytometry Analysis:

Mouse Strain: C57BL/6
Cell Concentration: 1 x 10^6 cells per test
Antibody Concentration: 1.0 µg/10^6 cells
Isotypic Control: FITC Hamster IgG (CLCHM01)

** B cells isolated with CL131 – Cedarlane’s Mouse B Cell Recovery Kit

N.B. Appropriate control samples should always be included in any labelling studies.

* For optimal results in various applications, it is recommended that each investigator determine dilutions appropriate for individual use.
REFERENCES:

