

anti-mouse CD81 (TAPA-1) FITC-conjugated

FITC- conjugated monoclonal antibody Eat2 to mouse CD81

Cat-No: **22150813**

500 µl

Clone: Eat2

Specificity: The antibody 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.

Isotype subclass: Hamster IgG

Form: The purified antibody is conjugated with Fluoresceinisothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.

Physical state: Liquid

Buffer/Additives/Preservative: PBS containing 1 % BSA and 0.09 % sodium azide (pH 7.2).

Expiration date: The reagent is stable until the expiry date stated on the vial label.

Storage conditions: Store at 4 °C. Avoid prolonged exposure to light.

Application: Flow Cytometry

Background: CD81 (TAPA-1), a member of the tetraspanin family, is expressed on virtually all nucleated cells, but above all on germinal center B cells. CD81 forms complexes with other tetraspanin proteins, integrins, coreceptors, MHC class I and II molecules, and influences adhesion, morphology, activation, proliferation and differentiation of B, T and other cells – e.g. in muscles CD81 promotes cell fusion and myotube maintenance. CD81 has been also identified as a receptor for the hepatitis C virus.

References:

1. Maecker, H. T., et al., 2000. Hybridoma 19:15-22.
2. Maecker, H. T., Todd, S. C., and Levy, S., 1997. Faseb J 11:428-442.
3. Miyazaki, T., Muller, U. and Campbell, K. S., 1997. Embo J 16:4217-4225.

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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