Product Information

Material Number: 550082
Alternate Name: ICAM-1
Size: 0.2 mg
Concentration: 0.2 mg/ml
Clone: U5A2-13
Immunogen: BALB/c nu/nu mouse lymphoma line tMK-2U
Isotype: Rat (F344) IgG2a, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The U5A2-13 mAb recognizes an antigen expressed on most NKT cells and 55% of NK cells in the liver of various mouse strains, including both NK1.1+ (e.g., C57BL/6) and NK1.1- (e.g., BALB/c, C3H/He, MRL/lpr) strains. Abundant IL-4 and IFN-γ are produced by U5A2-13 Ag+ TCR αβ+ cells upon CD3 cross-linking, but not by U5A2-13 Ag- TCR αβ+ cells in both NK1.1+ and NK1.1- strains. In C57BL/6 mice (NK1.1+ strain), 80% of U5A2-13 Ag+ T cells co-express the NK1.1 molecule. When staining hepatic mononuclear cells with U5A2-13 mAb, the fluorescence intensity detected on CD3- cells is lower than on CD3+ cells in BALB/c and C57BL/6 mice. Immunoprecipitation studies have shown that the U5A2-13 antigen comprises three proteins of 65 kDa, 34 kDa, and 31 kDa. This antibody clone U5A2-13 was originally established for mouse NKT cells, but recent studies showed that it recognized a novel conformational epitope of ICAM-1.

Expression of the NK-T/NK Cell Antigen on mouse hepatic mononuclear cells. C57BL/6 intrahepatic lymphocytes were stained with FITC-conjugated anti-mouse CD3e (Cat. No. 553061/553062), PE-conjugated U5A2-13, and biotinylated anti-mouse NK-1.1 (Cat. No. 553163) mAbs in the presence of Mouse Fc Block™ (Cat. No. 553141/553142), followed by Streptavidin-APC (Cat. No. 554067). The following four subpopulations of viable lymphocytes (Via-Probe™, Cat. No. 558161/558151) were selected for data analysis: NK1.1+ CD3-, NK1.1+ CD3+, NK1.1- CD3-, and NK1.1- CD3+ (R3, R4, R5, and R6, respectively, in panel A). The expression of the NK-T/NK Cell Antigen is shown as filled histograms, with isotype control as empty histograms, in Panels R3, R4, R6, and R5 displaying the respective subpopulations.

Flow cytometry was performed on a FACSCalibur™ (BDIS, San Jose, CA).

Preparation and Storage

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. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application
Flow cytometry
Routinely Tested

Recommended Assay Procedure:
For optimal immunofluorescent staining, we recommend the use of Mouse Fc Block™ (anti-mouse CD16/CD32 2.4G2 mAb, Cat. No. 553141/553142).

**Product Notices**

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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.

**References**