Technical Data Sheet

R718 Mouse Anti-Human CD99

Product Information

Material Number:	751651
Size:	50 µg
Clone:	TÜ12
Alternative Name:	E2; MIC2
Reactivity:	Tested in Development:Human
Isotype:	Mouse IgG2a, κ
Application:	Flow cytometry(Qualified)
Concentration:	0.2 mg/ml
Workshop No.:	IV N92
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The TÜ12 monoclonal antibody specifically recognizes CD99, also referred to as E2 antigen, a 32 kDa sialoglycoprotein expressed on all leucocyte lineages. The E2 antigen is the MIC2 gene product and is differentially expressed during T- and B-lymphoid and granulocytic development, with higher densities being expressed during early hematopoietic stages. Mature granulocytes express very little or no CD99. E2 has been shown to be involved in T-cell adhesion processes and is suggested to have a functional role in hematopoietic adhesion pathways.

The antibody was conjugated to BD Horizon Red 718, which has been developed exclusively for BD Biosciences as a better alternative to Alexa Fluor® 700. BD Horizon Red 718 can be excited by the red laser (628 – 640 nm) and, with an Em Max around 718 nm, it can be detected using a 730/45 nm filter. Due to similar excitation and emission properties, we do not recommend using R718 in combination with APC-R700 or Alexa Fluor® 700.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated to the dye under optimum conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to BD CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and BD CompBead to ensure that BD CompBeads are appropriate for your specific cellular application.

Suggested Companion Products

Catalog Number	Name	Size
564219	Human BD Fc Block™	50 µg
554656	Stain Buffer (FBS)	500 mL
554657	Stain Buffer (BSA)	500 mL
555899	Lysing Buffer	100 mL
349202	Lysing Solution 10X Concentrate	100 mL
566949	R718 Mouse IgG2a, κ Isotype Control	50 µg

Product Notices

1. Researchers should determine the optimal concentration of this reagent for their individual applications.

2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. An isotype control should be used at the same concentration as the antibody of interest.
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.
5. Alexa Fluor® is a registered trademark of Life Technologies Corporation.
6. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
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References

Knapp W. W. Knapp .. et al., ed. Leucocyte typing IV : white cell differentiation antigens. Oxford New York: Oxford University Press; 1989:1-1182.

Dworzak MN, Fritsch G, Buchinger P, et al. Flow cytometric assessment of human MIC2 expression in bone marrow, thymus, and peripheral blood. Blood. 1994; 83(2):415-425. (Biology).

Gelin C, Aubrit F, Phalipon A, et al. The E2 antigen, a 32 kd glycoprotein involved in T-cell adhesion processes, is the MIC2 gene product. EMBO J. 1989; 8(11):3253-3259. (Biology).

Aussel C, Bernard G, Breittmayer JP, Pelassy C, Zoccola D, Bernard A. Monoclonal antibodies directed against the E2 protein (MIC2 gene product) induce exposure of phosphatidylserine at the thymocyte cell surface. Biochemistry. 1993; 32(38):10096-10101. (Biology).

Chang A, Benda PM, Wood BL, Kussick SJ. Lineage-specific identification of nonhematopoietic neoplasms by flow cytometry.. Am J Clin Pathol. 2003; 119(5):643-55. (Clone-specific: Flow cytometry).

Uchańska-Ziegler B, Wernet P, Ziegler A. Differentiation of a human myeloid cell line (HL-60) toward granulocyte- and macrophage-like cells: comparison of cell surface antigen expression.. Haematol Blood Transfus. 1983; 28:386-8. (Clone-specific: Immunofluorescence).

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