Technical Data Sheet

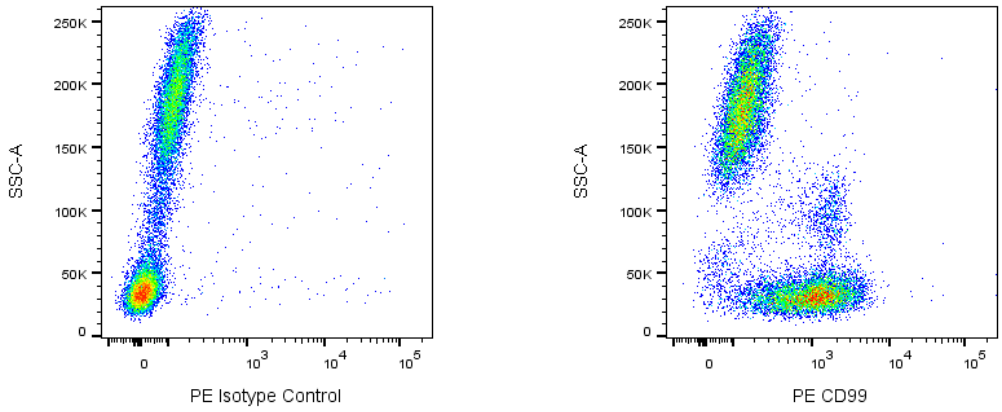
PE Mouse Anti-Human CD99

Product Information

Material Number:	**555689**
Alternate Name:	E2; MIC2
Size:	100 Tests
Vol. per Test:	20 µl
Clone:	TÜ12
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
RRID:	AB_396040
Workshop:	IV N92
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

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.



Multiparameter flow cytometric analysis of CD99 expression on human peripheral blood leucocytes populations. *Whole blood was stained with either PE Mouse IgG2a, κ Isotype Control (Cat. No. 555574; Left Plot) or PE Mouse Anti-Human CD99 antibody (Cat. No. 555689; Right Plot). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Bivariate pseudocolor density plots showing CD99 expression (or Ig Isotype control staining) versus side light-scatter (SSC-A) signals were derived from gated events with the forward and side light-scattering characteristics of intact leucocyte populations. Flow cytometry and data analysis were performed using a BD LSRFortessa™ Cell Analyzer System and FlowJo™ software.*

Preparation and Storage

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

Application Notes

Application

Flow cytometry	Routinely Tested

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® CompBeads to ensure that BD® CompBeads are appropriate for your specific cellular application.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555574	PE Mouse IgG2a, κ Isotype Control	100 Tests	G155-178
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	Lysing Solution 10X Concentrate	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).

References

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)

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)

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

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)