Technical Data Sheet

# PE Rat Anti-Mouse CD19

## Product Information

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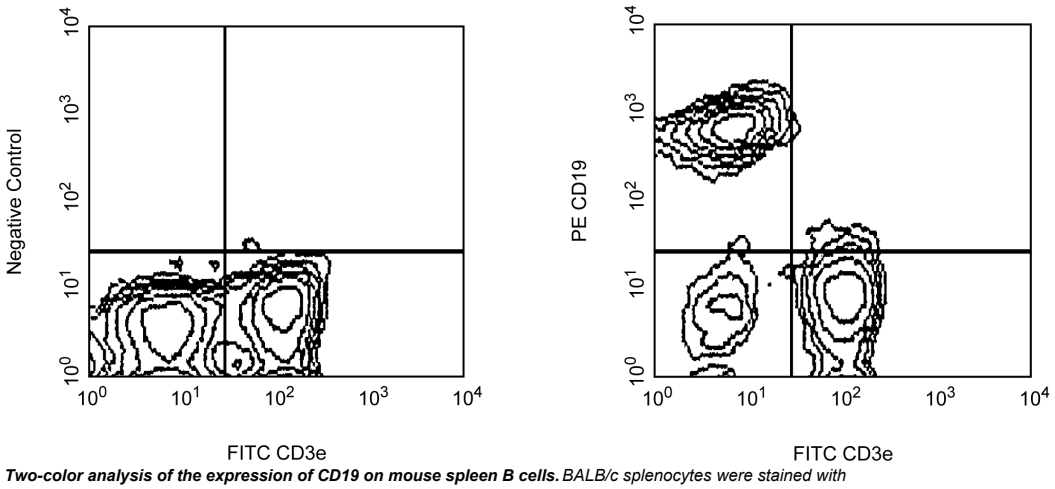
| **Material Number:** | **557399** |
| **Size:** | 0.1 mg |
| **Concentration:** | 0.2 mg/ml |
| **Clone:** | 1D3 |
| **Immunogen:** | Mouse CD19 Transfected Cell Line |
| **Isotype:** | Rat (LEW) IgG2a, κ |
| **Reactivity:** | QC Testing: Mouse |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The 1D3 antibody reacts with CD19, a B lymphocyte-lineage differentiation antigen. CD19, a 95-kDa transmembrance glycoprotein, is a member of the immunoglobulin superfamily and is expressed throughout B-lymphocyte development from the pro-B cell through the mature B-cell stages. Terminally differentiated plasma cells do not express CD19. On the surface of mature B cells, the CD19 molecule associates with CD21 (CR-2) and CD81 (TAPA-1), and this multimolecular complex synergizes with surface immunoglobulin to promote cellular activation. Studies with CD19-deficient mice have suggested that the level of CD19 expression affects the generation and maturation of B cells in the bone marrow and periphery. B-1 lineage B cells, also known as CD5+ B cells, are drastically reduced or absent in CD19-deficient mice. Increased levels of CD19 expression correlate with increased frequencies of peritonal and splenic B-1 cells and reduced numbers of conventional B lymphocytes in the periphery. CD19 participates in B-lymphocyte development, B-cell activation, maturation of memory B cells and regulation of tolerance. CD19 has also been detected on peritoneal mast cells, co-localized with CD21/CD35, and it is proposed to play a role in complement-mediated mast-cell activation.




***Two-color analysis of the expression of CD19 on mouse spleen B cells.*** *BALB/c splenocytes were stained with FITC-conjugated anti-mouse CD3e mAb 145-2C11 (Cat. No. 553061) in the absence (left panel) or presence (right panel) of PE-conjugated mAb 1D3. Flow cytometry was performed on a BD FACScan™ flow cytometry system.*

## 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**

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| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 553061 | FITC Hamster Anti-Mouse CD3e | 0.1 mg | 145-2C11 |
| 554714 | BD Cytofix/Cytoperm™ Fixation/Permeablization Kit | 250 tests | (none) |
| 553930 | PE Rat IgG2a, κ Isotype Control | 0.1 mg | R35-95 |

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## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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


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