

## Technical Data Sheet

## Purified NA/LE Rat Anti-Mouse CD19

## Product Information

|                  |   |
|------------------|---|
| Material Number: | 553782  |
| Size:            | 0.5 mg  |
| Concentration:   | 1.0 mg/ml   |
| Clone:           | 1D3   |
| Immunogen:       | Mouse CD19 Transfected Cell Line  |
| Isotype:         | Rat (LEW) IgG2a, $\kappa$   |
| Reactivity:      | QC Testing: Mouse   |
| Storage Buffer:  | No azide/low endotoxin: Aqueous buffered solution containing no preservative, 0.2 $\mu$ m sterile filtered. Endotoxin level is $\leq$ 0.01 EU/ $\mu$ g ( $\leq$ 0.001 ng/ $\mu$ g) of protein as determined by the LAL assay. |

## Description

The 1D3 antibody reacts with CD19, a B lymphocyte-lineage differentiation antigen. CD19, a 95-kDa transmembrane 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 peritoneal 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.

## Preparation and Storage

Store undiluted at 4°C.

This preparation contains no preservatives, thus it should be handled under aseptic conditions.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

## Application Notes

## Application

|                             |                           |
|-----------------------------|---------------------------|
| Flow cytometry              | Routinely Tested          |
| Immunohistochemistry-frozen | Tested During Development |
| Functional assay            | Reported                  |
| Immunoprecipitation         | Reported                  |

## Suggested Companion Products

| Catalog Number | Name  | Size   | Clone  |
|----------------|---|--------|--------|
| 550284         | Purified Rat Anti-Mouse CD19                      | 1.0 ml | 1D3    |
| 553926         | Purified NA/LE Rat IgG2a $\kappa$ Isotype Control | 0.5 mg | R35-95 |
| 553783         | Purified Rat Anti-Mouse CD19                      | 0.5 mg | 1D3    |

## Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to [www.bdbiosciences.com/pharmingen/protocols](http://www.bdbiosciences.com/pharmingen/protocols) for technical protocols.

## References

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