SouthernBiotech

Rat Anti-Mouse CD19

Cat. No.	Form	Quantity
1575-01	Purified (UNLB) Antibody	0.5 mg
1575-02	Fluorescein (FITC) Conjugate	0.5 mg
1575-02S	Fluorescein (FITC) Conjugate	0.1 mg
1575-08	Biotin (BIOT) Conjugate	0.5 mg
1575-09	R-phycoerythrin (R-PE) Conjugate	0.1 mg
1575-09L	R-phycoerythrin (R-PE) Conjugate	0.2 mg
1575-11	Allophycocyanin (APC) Conjugate	0.1 mg
1575-13	*Spectral Red™ (SPRD) Conjugate	0.1 mg
1575-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
1575-15	**Cyanine 5 (CY™5) Conjugate	0.1 mg
1575-16	**R-phycoerythrin-Cyanine 5.5 (R-PE-CY™5.5) Conjugate	0.1 mg
1575-17	**R-phycoerythrin-Cyanine 7 (R-PE-CY™7) Conjugate	0.1 mg
1575-30	**Alexa Fluor 488 (AF488) Conjugate	0.1 mg

DESCRIPTION

Clone 6D5

Ig Isotype Rat (Lewis) $IgG_{2a}\kappa$

Immunogen Mouse CD19-expressing K562 human erythroleukemia cells [1]

Specificity CD19 B-cell differentiation antigen, Mr 95 kDa

CD19 is a monomeric transmembrane glycoprotein expressed at relatively constant levels throughout B cell development from early pro-B/pre-B cells (i.e. $B220^+/CD43^+/HSA^+$) through fully differentiated B cell stages.[1-7] Terminally differentiated plasma cells do not express CD19.[1] In humans, the CD19 molecule on the surface of mature B cells associates with CD21 (CR-2) and CD81 (TAPA-1), and this multimolecular complex synergizes with surface immunoglobulin to provide signal transduction and promote cellular activation.[3, 4] All splenic and peritoneal IgM^+ cells of both B-1 and B-2 lineages are $CD19^+$, with B-1 cells expressing higher levels of CD19 than B-2 cells in these sites.[1, 7] Recent studies with CD19-deficient mice have suggested that this molecule may not be required for normal generation and maturation of B cells in the bone marrow.[7] Monoclonal antibody 6D5 recognizes the same epitope as the published clone, 1D3.[1, 8]

RESEARCH APPLICATIONS

- Flow cytometry [8]

CHARACTERIZATION

To ensure lot-to-lot consistency, each batch of monoclonal antibody is tested by flow cytometry to conform to characteristics of a standard reference reagent. Representative data are included in this product insert.

WORKING DILUTIONS

Flow Cytometry:	Fluorescein conjugate	$\leq 1\ \mu g/10^6$ cells
	Biotin conjugate	$\leq 1\ \mu g/10^6$ cells
	PE, APC, SPRD, CY5, PE/CY5.5, PE/CY7, and AF488 conjugates	$\leq 0.2\ \mu g/10^6$ cells

Other Applications: Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

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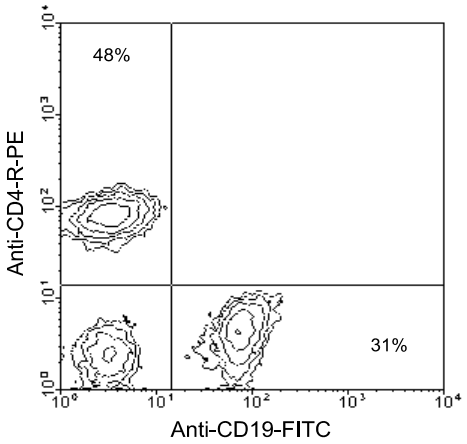
IMMUNOFLUORESCENT STAINING

Product: Rat Anti-Mouse CD19-FITC
Cat No: 1575-02
Amount used: ≤ 1 μg/10^6 cells

Cells from BALB/c mesenteric lymph nodes were double-stained with anti-mouse CD19-FITC and anti-mouse CD3-R-PE (Cat No. 1535-09, clone C363.29B), gated on small lymphocytes and analyzed on a FACScan™ flow cytometer (BDIS, San Jose, CA).



HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added*. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg or 0.1 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The R-phycoerythrin (R-PE) conjugate is supplied as 0.1 mg in 1.0 mL or 0.2 mg in 2.0 mL of PBS/NaN_3 and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The allophycocyanin (APC), Spectral Red™ (SPRD), R-phycoerythrin-Cyanine 7 (R-PE-CY™7) and R-phycoerythrin-Cyanine 5.5 (R-PE-CY™5.5) conjugates are supplied as 0.1 mg in 1.0 mL of PBS/NaN_3 and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. **Aliquot and store at or below -20°C.**
- The Cyanine 5 (CY™5) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The Alexa Fluor 488 (AF488) conjugate is supplied as 0.1mg in 0.2mL of PBS/NaN_3. Store at 2-8°C.
- Protect conjugated forms from light. Aliquot and freeze the low endotoxin, azide-free product at -20°C immediately upon receipt. Each reagent is stable for the period shown on the bottle label if stored as directed.

WARNING

Reagents contain sodium azide. Sodium azide is very toxic if ingested or inhaled. Avoid contact with skin, eyes, or clothing. Wear eye or face protection when handling. If skin or eye contact occurs, wash with copious amounts of water. If ingested or inhaled, contact a physician immediately. Sodium azide yields toxic hydrazoic acid under acidic conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

REFERENCES

1. Krop, I., A.R. Fougerolles, R.R. Hardy, M. Allison, M.S. Schlissel, and D.T. Fearon. 1996. *Eur. J. Immunol;*. 26:238.
2. Krop, I., A.L. Shaffer, D.T. Fearon, and M.S. Schlissel. 1996. *J. Immunol*. 157:48.
3. Fearon, D.T. 1993. *Curr. Opin. in Immunol*. 5:341.
4. Tedder, T.F., L.-J. Zhou, and P. Engel. 1994. *Immunol. Today* 15:437.
5. Rickert, R.C., K. Rajewsky, and J. Roes. 1995. *Nature* 376:352.
6. Engel, P., L.-J. Zhou, D.C. Ord, S. Sato, B. Koller, and T.F. Tedder. 1995. *Immunity* 3:39.
7. Rolink, A., E. ten Boekel, F. Melchers, D.T. Fearon, I. Krop, and J. Andersson. 1996. *J. Exp. Med*. 183:187.
8. Sato, S., M. Hasegawa, M. Fujimoto, T.F. Tedder, and K. Takehara. 2000. *J. Immunol*. 165:6635.

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