

## Mouse Anti-Human CD3

| Cat. No. | Form  | Quantity  |
|----------|---|-----------|
| 9515-01  | Purified (UNLB) Antibody                              | 0.1 mg    |
| 9515-02  | Fluorescein (FITC) Conjugate                          | 100 tests |
| 9515-08  | Biotin (BIOT) Conjugate                               | 100 tests |
| 9515-09  | R-phycoerythrin (R-PE) Conjugate                      | 100 tests |
| 9515-11  | Allophycocyanin (APC) Conjugate                       | 100 tests |
| 9515-13  | *Spectral Red™ (SPRD) Conjugate                       | 100 tests |
| 9515-14  | Low Endotoxin, Azide-Free (LE/AF)                     | 0.1 mg    |
| 9515-15  | **Cyanine 5 (CY™5) Conjugate                          | 100 tests |
| 9515-16  | **R-phycoerythrin-Cyanine 5.5 (R-PE-CY™5.5) Conjugate | 100 tests |
| 9515-17  | **R-phycoerythrin-Cyanine 7 (R-PE-CY™7) Conjugate     | 100 tests |
| 9515-19  | **Allophycocyanin-Cyanine 7 (APC-CY™7) Conjugate      | 100 tests |

### DESCRIPTION

|                    |  |
|--------------------|--|
| <b>Clone</b>       | UCHT1  |
| <b>Ig Isotype</b>  | Mouse IgG <sub>1</sub>                             |
| <b>Specificity</b> | ε chain of the CD3/T cell antigen receptor complex |

CD3, a member of the immunoglobulin superfamily of cell surface receptors, is comprised of five invariable chains ranging from 16-28 kDa and is closely associated with the T cell antigen receptor (TCR). CD3 is expressed on 70-80% of normal peripheral blood lymphocytes and on 10-20% of thymocytes. It plays a major role in signaling during antigen recognition, leading to T cell activation. The monoclonal antibody UCHT1 reacts with the 20 kDa ε chain of the CD3/TCR complex.<sup>1-5</sup>

### RESEARCH APPLICATIONS

- Flow cytometry
- Immunohistochemistry (frozen sections)
- Immunoprecipitation
- *In vitro* activation

### CHARACTERIZATION

To insure lot to lot consistency, each batch of product is tested by flow cytometry to conform to the characteristics of a standard reference reagent.

### WORKING DILUTIONS

|                            |   |                              |
|----------------------------|---|------------------------------|
| <b>Flow</b>                | Purified antibody   | ≤ 1 μg/10 <sup>6</sup> cells |
| <b>Cytometry:</b>          | Fluorescein conjugate   | 10 μL/10 <sup>6</sup> cells  |
|                            | Biotin conjugate  | 10 μL/10 <sup>6</sup> cells  |
|                            | R-phycoerythrin conjugate   | 10 μL/10 <sup>6</sup> cells  |
|                            | Allophycocyanin and Allophycocyanin-Cyanine 7 conjugates  | 10 μL/10 <sup>6</sup> cells  |
|                            | Spectral Red™ conjugate   | 10 μL/10 <sup>6</sup> cells  |
|                            | Cyanine 5 conjugate   | 10 μL/10 <sup>6</sup> cells  |
|                            | R-phycoerythrin-Cyanine 5.5 conjugate   | 10 μL/10 <sup>6</sup> cells  |
|                            | R-phycoerythrin-Cyanine 7 conjugate   | 10 μL/10 <sup>6</sup> cells  |
| <b>Other Applications:</b> | Since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need. |                              |

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

## HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.1 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) and Cyanine 5 (CY<sup>TM</sup>5) conjugates are supplied as 100 tests in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 100 tests in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (R-PE) and allophycocyanin (APC) conjugates are supplied as 100 tests in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The Spectral Red<sup>TM</sup> (SPRD), R-phycoerythrin-Cyanine 7 (R-PE-CY<sup>TM</sup>7), R-phycoerythrin-Cyanine 5.5 (R-PE-CY<sup>TM</sup>5.5), and allophycocyanin-Cyanine 7 (APC-CY<sup>TM</sup>7) conjugates are supplied as 100 tests in 1.0 mL of PBS/NaN<sub>3</sub> 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 0.2 mL of PBS. **Aliquot and store at or below -20°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. McMichael, A.K., P.C.L. Beverly, S. Cobbold, M.J. Crumpton, W. Gilks, F.M. Gotch, N. Hogg, M. Horton, N. Ling, I.C.M. MacLennan, D.Y. Mason, C. Milstein, D. Spiegelhalter, and H. Waldmann, eds. 1987. *Leukocyte Typing III: White Cell Differentiation Antigens*, Oxford University Press, Oxford.
2. Knapp, W., B. Dorken, W.R. Gilks, E.P. Rieber, R.E. Schmidt, H. Stein, A.E.G.K. Von dem Borne, eds. 1989. *Leukocyte Typing IV: White Cell Differentiation Antigens*, Oxford University Press, Oxford.
3. Schlossman, S., L. Bloumsell, W. Gilks, J.M. Harlan, C. Kishimoto, J. Ritz, S. Shaw, R. Silverstein, T. Springer, T.F. Tedder, and R.F. Todd, eds. 1995. *Leukocyte Typing V: White Cell Differentiation Antigens*, Oxford University Press, Oxford.
4. Barclay, A.N., M.H. Brown, S.K.A. Law, A.J. McKnight, M.G. Tomlinson, and P.A. van der Merwe, eds. 1997. *The Leukocyte Antigens Facts Book, 2nd Edition*, CD3 Section, Academic Press, New York, p. 137.
5. Beverly, P.C.L., and P.E. Callard. 1981. *Eur. J. Immunol.* 11:329.

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