

Mo-CD3/CD8/CD45

3 Color FCM Reagent: sc-3969



BACKGROUND

Mouse CD3/CD8/CD45: sc-3969 is a direct immunofluorescence reagent formatted to identify and determine the percentage of mature T lymphocytes and suppressor/cytotoxic T lymphocytes in erythrocyte-lysed whole blood, based on cell-surface antigen expression. CD3 identifies T lymphocytes and non-covalently associates with either α/β or γ/δ TCR (1). CD45 is a major leukocyte cell surface molecule and a member of the leukocyte common antigen (LCA) family (2). CD8 identifies suppressor/cytotoxic T lymphocytes and binds class I MHC molecules, which enhances the activation of resting T lymphocytes (4). CD3+CD8+ and CD3+CD4+ percentages are used to characterize and monitor some forms of immunodeficiency and autoimmune disease (5,6).

| Antigen Expression | Cell Type Identified |
|--------------------|------------------------------|
| CD3+ | Mature T Cells |
| CD3+ CD8+ | Suppressor/Cytotoxic T Cells |

STORAGE

Store at 4° C. Do not freeze. Stable for one year from the date of shipment. Protect reagents from prolonged exposure to light.

PRODUCT

Supplied in 1.0 ml of PBS containing 0.1% azide and 0.1% gelatin. Sufficient for 50 tests. This product has been titrated for optimal performance. Recommended use is 20 μ L per test (1×10^6 cells). **For research use only. Not for use in diagnostic procedures.**

INSTRUMENT

Mouse CD3/CD8/CD45: sc-3969 is recommended for use with either a single or dual laser Flow Cytometer fitted with appropriate acquisition and analysis software, such as the FACSCalibur™ Flow Cytometer fitted with CellQuest™ Software by Becton Dickinson.

The flow cytometer must be equipped with a 488 nm laser and must be capable of detecting light scatter (forward and side) and three-color fluorescence with emission detectable in three ranges: 515-545 nm, 562-607 nm and >650 nm, and it must be able to threshold and discriminate using the >650 channel.

| Antigen | Clone | Isotype | Label* | Detection Range (nm) |
|---------|----------|-----------------------|--------|----------------------|
| CD3 | 145-2C11 | Armenian Hamster IgG | FITC | 515-545 |
| CD8 | 53-6.7 | rat IgG _{2a} | PE | 562-607 |
| CD45 | MB4B4 | rat IgG | PE-Cy5 | >650 |

*Fluorescent labels include FITC: Fluorescein isothiocyanate; PE: phycoerythrin; PE-Cy5: phycoerythrin-cyanin 5.

ISOTYPE CONTROL

sc-3969 CON (Armenian Hamster IgG FITC/rat IgG_{2a} PE/rat IgG PE-Cy5) is the isotype matched negative control for this system and is suitable for 50 tests.

REFERENCES

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6. Smolen, J.S., Chused, T.M., Leiserson, W.M., Reeves, J.P., Alling, D., and Steinberg, A.D. 1982. Heterogeneity of immunoregulatory T-cell subsets in systemic lupus erythematosus. Correlation with clinical features. *Am. J. Med.* **2**: 783-790.