Hu-CD3/CD8
2 Color FCM Reagent: *sc-3950*

BACKGROUND

Human CD3/CD8: sc-3950 is a direct immunofluorescence reagent formatted to identify and determine the percentage of mature T cells and suppressor/cytotoxic T cells in erythrocyte-lysed whole blood, based on cell-surface antigen expression. T lymphocytes participate in antigen-specific cell-mediated immunity and regulate the secretion of immunoglobulin by B lymphocytes. CD3 identifies T lymphocytes and non-covalently associates with either α/β or γ/δ TCR, which recognizes antigens associated with the MHC (1). CD8 identifies suppressor/cytotoxic T lymphocytes (2,3) and binds class I MHC molecules, resulting in enhanced activation of resting T lymphocytes (4). Beginning at seroconversion and during the first stages of HIV infection, the number of CD8+ T lymphocytes increases, while the number of CD4+ T lymphocytes decreases (5). At the onset of AIDS, CD3+, CD4+ and CD8+ T lymphocyte levels decline, but in the late stages of AIDS, the remaining lymphocytes are CD8+ (5). CD3+CD8+ as well as CD3+CD4+ percentages are, therefore, useful in monitoring HIV and other forms of immunodeficiency and autoimmune disease (6,7).

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 uL per test ($1x10^6$ cells). **For research use only. Not for use in diagnostic procedures.**

INSTRUMENT

Human CD3/CD8: sc-3950 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 two-color fluorescence with emission detectable in two ranges: 515-545 nm, 562-607 nm.

Antigen	Clone	Isotype	Label*	Detection Range (nm)
CD3	UCH-T1	IgG_1	FITC	515-545
CD8	HIT8a	IgG_1	PE	562-607

*Fluorescent labels include FITC: Fluorescein isothiocyanate; PE: phycoerythrin

ISOTYPE CONTROL

sc-3950 CON (IgG_1 FITC/IgG_1 PE) is the isotype matched negative control for this system and is suitable for 50 tests.

REFERENCES

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