Hu-CD8/CD56/CD3
3 Color FCM Reagent: *sc-2940*

BACKGROUND

Human CD8/CD56/CD3 sc-2940 is a direct immunofluorescence reagent formatted to identify and determine the percentage of mature human T lymphocytes and suppressor 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). CD8 identifies suppressor/cytotoxic T lymphocytes and binds class I MHC molecules, which enhances the activation of resting T lymphocytes (2). CD56 is present on essentially all resting and activated CD16+ natural killer (NK) cells and on a small percentage of CD3+ peripheral blood lymphocytes (3). CD56 expression decreases when NK cells are activated (4). CD3+CD56+ T lymphocytes comprise a subset of cytotoxic T lymphocytes that mediates non-MHC restricted cytotoxicity (3). CD3+CD56+CD8+ cells may behave as suppressor T cells (5).

Antigen Expression	Cell Type Identified
CD3+	Mature T Cells
CD3+ CD8+	Suppressor/Cytotoxic T Cells
CD3+ CD56+ CD8+	Suppressor 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 CD8/CD56/CD3 sc-2940 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)
CD8	HIT8a	IgG_1	FITC	515-545
CD56	123C3	IgG_1	PE	562-607
CD3	UCH-T1	IgG_1	PE-Cy5	>650

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

ISOTYPE CONTROL

sc-2940 CON (IgG_1 FITC/IgG_{2a} PE/IgG_1 PE-Cy5) is the isotype matched negative control for this system and is suitable for 50 tests.

REFERENCES

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January 2002