Hu-CD8/HLA-DR
2 Color FCM Reagent: *sc-3959*

BACKGROUND

Human CD8/HLA-DR: sc-3959 is a direct immunofluorescence reagent formatted to identify and determine the percentage of activated human T lymphocytes and hematapoietic progenitor cells in erythrocyte-lysed whole blood, based on cell-surface antigen expression. CD8 identifies suppressor/cytotoxic T lymphocytes and binds class I MHC molecules, which enhances the activation of resting T lymphocytes (1). HLA-DR is a class II MHC antigen that is expressed on B lymphocytes, monocytes, macrophages, activated T lymphocytes, activated NK lymphocytes and on human hematopoietic progenitor cells (2-4). HLA-DR is also present on thymic epithelium, B-lymphocyte-dependent areas of spleen and lymph node and B-cell lymphomas (5). CD8+HLA-DR+ T lymphocytes are involved in the immune response to viral infections (6). In HIV infection, the coexpression of CD8 and CD38, with a concomitant low percentage of CD4+ lymphocytes, is closely associated with disease progression (7-9). Selective elevation of HLA-DR+ CD38- CD8+ cells may be a marker of stable HIV disease (10,11).

Antigen Expression	Cell Type Identified
CD8+	Suppressor/Cytotoxic T Cells
CD8+ HLA-DR+	Activated 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 CD8/HLA-DR: sc-3959 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.

ISOTYPE CONTROL

sc-3959 CON (IgG_1 FITC/IgG_{2a} PE) is the isotype matched negative control for this system and is suitable for 50 tests.

Antigen	Clone	Isotype	Label*	Detection Range (nm)
CD8	HIT8a	IgG_1	FITC	515-545
HLA-DR	L243	IgG_{2a}	PE	562-607

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

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