

# Hu-CD8/CD38/CD3

## 3 Color FCM Reagent: sc-3604



### BACKGROUND

Human CD8/CD38/CD3: sc-3604 is a direct immunofluorescence reagent formatted to identify and determine the percentage of activated mature human 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  $\alpha/\beta$  or  $\gamma/\delta$  TCR (1). CD8 identifies suppressor/cytotoxic T lymphocytes and binds class I MHC molecules, which enhances the activation of resting T lymphocytes (2). CD3+CD8+ and CD3+CD4+ percentages are used to characterize and monitor some forms of immunodeficiency and autoimmune disease (3,4). CD38 is expressed on activated T and NK lymphocytes (5) and may play a role in regulating humoral immune responses (6) and in the clinical management of HIV-infected persons (7).

Antigen Expression	Cell Type Identified
CD3+	Mature T Cells
CD3+ CD8+	Suppressor/Cytotoxic T Cells
CD3+ CD8+ CD38+	Activated S/C 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  $\mu$ L per test ( $1 \times 10^6$  cells). **For research use only. Not for use in diagnostic procedures.**

### INSTRUMENT

Human CD8/CD38/CD3: sc-3604 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 <sub>1</sub>	FITC	515-545
CD38	HB7	IgG <sub>1</sub>	PE	562-607
CD3	UCH-T1	IgG <sub>1</sub>	PE-Cy5	>650

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

### ISOTYPE CONTROL

sc-3604 CON (IgG<sub>1</sub> FITC/IgG<sub>1</sub> PE/IgG<sub>1</sub> PE-Cy5) is the isotype matched negative control for this system and is suitable for 50 tests.

### REFERENCES

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