Hu-CD7/CD33 2 Color FCM Reagent: *sc-3938*



BACKGROUND

Human CD7/CD33: sc-3938 is a direct immunofluorescence reagent formatted to identify and determine the percentage of lymphoid and myeloid progenitor cells (1) in erythrocyte-lysed whole blood, based on cell-surface antigen expression. CD7 is expressed throughout T-lymphocyte differentiation and is present on most peripheral blood T lymphocytes and NK lymphocytes (2). CD7 is not expressed on granulocytes nor on B lymphocytes (2,3). In leukemias, CD7 is present on the majority of T-lymphoid lineages (4). CD33 is a myeloid progenitor cell marker (5) that is highly expressed on monocytes, and weakly expressed on granulocytes (6). In combination with other markers, CD33 can be used to further subdivide granulocytes into neutrophil, eosinophil and basophil populations (6). Normal lymphocytes, platelets and erythrocyes do not express CD33; however, CD33 is expressed in the majority of acute myeloid leukemias and can be aberrantly expressed in acute lymphoblastic leukemias (7,8). CD7 and CD33 expressed may be useful in determining the lineage assignment of acute leukemias (9).

Antigen Expression	Cell Type Identified	
CD7+	T Cells and NK Cells	
CD33+	Myelomonocytic 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 CD7/CD33: sc-3938 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-3938 CON (IgG_1 FITC/ IgG_1 PE) is the isotype matched negative control for this system and is suitable for 50 tests.

Antigen	Clone	Isotype	Label*	Detection Range (nm)
CD7	M-T701	IgG ₁	FITC	515-545
CD33	P67.6	IgG ₁	PE	562-607

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

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