

Hu-CD103/CD22/CD20

3 Color FCM Reagent: sc-3930



BACKGROUND

Human CD103/CD22/CD20: sc-3930 is a direct immunofluorescence reagent formatted to identify and determine the percentage of human iIEL T lymphocytes and B lymphocytes in erythrocyte-lysed whole blood, based on cell-surface antigen expression. CD103 is expressed on the surface of more than 90% of intestinal intraepithelial lymphocytes (iIEL), but on less than 5% of resting peripheral blood lymphocytes (1,2). CD22 is expressed in the cytoplasm of all B lymphocytes and on the surface of mature B lymphocytes (3). CD22 is expressed in most B cell leukemias and nearly all B cell lymphomas, but not in T cell leukemias nor T cell lymphomas (4). CD20 is expressed on B lymphocytes synchronous with the expression of surface IgM (3,5). CD20 is present on both resting and activated B lymphocytes, but is lost prior to differentiation into plasma cells (5). Low levels of CD20 are expressed on a subpopulation of T lymphocytes (6).

Antigen Expression	Cell Type Identified
CD103+	iIEL T Lymphocytes
CD22+	Mature B Lymphocytes
CD20+	Resting and Activated B 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 (1x10⁶ cells). **For research use only. Not for use in diagnostic procedures.**

INSTRUMENT

Human CD103/CD22/CD20: sc-3930 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)
CD103	Ber-ACT8	IgG ₁	FITC	515-545
CD22	SJ10.1H11	IgG ₁	PE	562-607
CD20	B-LY1	IgG ₁	PE-Cy5	>650

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

ISOTYPE CONTROL

sc-3930 CON (IgG₁ FITC/IgG₁ PE/IgG₁ PE-Cy5) is the isotype matched negative control for this system and is suitable for 50 tests.

REFERENCES

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