

Hu-CD45/CD14

2 Color FCM Reagent: sc-3943



BACKGROUND

Human CD45/CD14: sc-3935 is a direct immunofluorescence reagent formatted to establish an optimal lymphocyte gate for immunophenotyping in erythrocyte-lysed whole blood, based on cell-surface antigen expression. CD45 is a major leucocyte cell surface molecule and is expressed by all human leucocyte subsets (including lymphocytes, monocytes, granulocytes, eosinophils and basophils in peripheral blood) at different densities on their cell surface (1,2). CD14 is preferentially expressed on the surface of mature cells of monocytic lineage. Specifically, CD14 is present on the majority of normal peripheral blood monocytes (3), and on a small percentage of peripheral blood granulocytes (4). Monocytes show moderate levels of CD45 expression, while showing high levels of CD14 expression. Expression of CD14 on the surface of human macrophages is important for the recognition and clearance of apoptotic cells (5).

Antigen Expression	Cell Type Identified
CD45+	Human Leucocytes
CD14+	Myelomonocytic Cells
CD14+ CD45+	Lymphocytes
CD14+ CD45-	Monocytes

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 CD45/CD14: sc-3943 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.

Antigen	Clone	Isotype	Label*	Detection Range (nm)
CD45	2D-1	IgG ₁	FITC	515-545
CD14	BA-8	IgG ₁	PE	562-607

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

ISOTYPE CONTROL

sc-3943 CON (IgG₁ FITC/IgG₁ PE) is the isotype matched negative control for this system and is suitable for 50 tests.

REFERENCES

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