

Hu-CD14/CD64

2 Color FCM Reagent: sc-3935



BACKGROUND

Human CD14/CD64: sc-3935 is a direct immunofluorescence reagent formatted to identify and determine the percentage of cells of monocytic lineage in erythrocyte-lysed whole blood, based on cell-surface antigen expression. 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 (1), and on a small percentage of peripheral blood granulocytes (2). Expression of CD14 on the surface of human macrophages is important for the recognition and clearance of apoptotic cells (3). CD64 is a high affinity Fc receptor for immunoglobulin present on the surface of leucocytes (4,5). Specifically, CD64 is expressed on the surface of monocytes, macrophages, at very low levels on polymorphonuclear neutrophils (PMNs) (4,5) and on a subpopulation of circulating dendritic cells (6). CD64 is an early marker of granulomonocytic lineage on CD34+ hematopoietic progenitors (7).

Antigen Expression	Cell Type Identified
CD14+	Myelomonocytic Cells
CD64+	Monocytes, Macrophages

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 CD14/CD64: sc-3935 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)
CD14	BA-8	IgG ₁	FITC	515-545
CD64	10.1	IgG ₁	PE	562-607

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

ISOTYPE CONTROL

sc-3935 CON (IgG₁FITC/IgG₁ PE) is the isotype matched negative control for this system and is suitable for 50 tests.

REFERENCES

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