

Hu-CD64/CD45

2 Color FCM Reagent: *sc-3611*



BACKGROUND

Human CD64/CD45: *sc-3611* is a direct immunofluorescence reagent formatted to identify cells expressing the CD64 and CD45 antigens from erythrocyte-lysed whole blood, which may contribute to studies of inflammatory response, neutrophil and monocyte function and dendritic cell function (1-3). CD45 is present on all human leukocytes, including lymphocytes, monocytes, granulocytes, eosinophils, and basophils in peripheral blood (4,5). CD45 plays a role in signal transduction by modifying signals from other cell surface molecules (4). CD64 (also designated FcγRI) is a high affinity Fc receptor for immunoglobulins that, like CD45, is present on the surface of leukocytes, including monocytes, macrophages and on a sub-population of circulating dendritic cells (1-3). CD64 is also an early granulomonocytic lineage marker on CD34+ hemopoietic progenitors (6). Studying the quantitative expression of CD64 on neutrophils may be a useful tool for identifying infection or acute inflammatory response (7).

Antigen Expression	Cell Type Identified
CD45+	All human leukocytes
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 CD64/CD45: *sc-3611* 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 and 562-607 nm.

Antigen	Clone	Isotype	Label*	Detection Range (nm)
CD64	10.1	IgG ₁	FITC	515-545
CD45	2D1	IgG ₁	PE	562-607

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

ISOTYPE CONTROL

sc-3611 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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