Hu-CD15/CD117
2 Color FCM Reagent: *sc-3936*

BACKGROUND

Human CD15/CD117: sc-3936 is a direct immunofluorescence reagent formatted to identify and determine the percentage of myelomonocytic cells, monocytes and macrophages in erythrocyte-lysed whole blood, based on cell-surface antigen expression. CD15 is expressed on more than 95% of mature peripheral blood neutrophils, eosinophils and on a small percentage of circulating monocytes (1). CD15 is the myeloid type of alpha-3-fucosyltransferase (also designated FUT4) (2), which is distinct from the plasma type of alpha-3-fucosyltransferase (designated FUT5) (3,4) in that only CD15 creates the 3-fucosyllactosamine epitope on polymorphonuclear cells and monocytes (2). CD117 is the receptor for stem cell factor (SCF) and it is primarily expressed on hematopoietic progenitor cells in bone marrow (5,6). CD117 is also highly expressed in erythroid and granulomonocytic CD34+ subsets, whereas B-lymphoid committed cells (CD34+CD19+) express low levels of CD117 (6). Only a small number of CD34- cells express CD117 (6).

Antigen Expression	Cell Type Identified
CD15+	Myelomonocytic Cells
CD117+	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 ($1x10^6$ cells). **For research use only. Not for use in diagnostic procedures.**

INSTRUMENT

Human CD15/CD117: sc-3936 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)
CD15	C3D-1	IgM	FITC	515-545
CD117	104D2	IgG_1	PE	562-607

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

ISOTYPE CONTROL

sc-3936 CON (IgM FITC/IgG_1 PE) is the isotype matched negative control for this system and is suitable for 50 tests.

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