

# Hu-IFN- $\gamma$ /IL-4

## 2 Color FCM Reagent: sc-3613



### BACKGROUND

Human IFN- $\gamma$ /IL-4: sc-3613 is a direct immunofluorescence reagent formatted to identify lymphocyte subsets based on cytokine expression in erythrocyte-lysed whole blood. IFN- $\gamma$  is a multifunctional immunomodulator with anti-tumor and anti-viral activity (1,2). Upon activation, IFN- $\gamma$  is produced by most CD8+ T lymphocytes, and by the T<sub>H1</sub> and T<sub>H0</sub> subsets of CD4+ lymphocytes (1,2). Originally described as a B cell growth factor, IL-4 is a pleiotropic cytokine that causes multiple immune responses (3,4,5). IL-4 is produced by activated helper CD4+ T lymphocytes, specifically the T<sub>H0</sub> and T<sub>H2</sub> subsets, and by CD8+ T lymphocytes, basophils and mast cells (3,6,7).

Cytokine	Expression Pattern (Upon Activation of Cells)
IFN $\gamma$	CD8+ T cells, NK cells, CD4+ (T <sub>H0</sub> and T <sub>H1</sub> ) T cells
IL-4	CD8+ T cells, Helper CD4+ (T <sub>H0</sub> and T <sub>H2</sub> ) T 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  $\mu$ L per test (1x10<sup>6</sup> cells). **For research use only. Not for use in diagnostic procedures.**

### INSTRUMENT

Human IFN- $\gamma$ /IL-4: sc-3613 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)
IFN $\gamma$	G-23	IgG <sub>1</sub>	FITC	515-545
IL-4	HIL44	IgG <sub>1</sub>	PE	562-607

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

### ISOTYPE CONTROL

sc-3613 CON (IgG<sub>1</sub> FITC/IgG<sub>1</sub> PE) is the isotype matched negative control for this system and is suitable for 50 tests.

### REFERENCES

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