

## Immune Cell Phenotype and Function

# Human NK Cell Companion Kits

### Product Information

Catalog No. 97089 MIP-1 $\alpha$

Catalog No. 97090 RANTES

Catalog No. 97091 GM-CSF

Catalog No. 97092 CD178 (Fas Ligand)

Catalog No. 97093 Granzyme A

Catalog No. 97094 TNF $\alpha$

### Background

The Human NK Cell Companion Kits can be used in combination with the Human NK Cell Mediated Killing Kit. The Human NK Cell Companion Kit allows the measurement of several human cytokines/effector proteins in addition to IFN $\gamma$  and Granzyme B which are already included in the Human NK Cell Mediated Killing Kit. The additional cytokines/effector proteins offered in the NK Cell Companion Kits include: Human MIP-1 $\alpha$  (CCL3), RANTES (CCL5), GM-CSF, CD178 (Fas Ligand), Granzyme A, and TNF $\alpha$ .

### Components

Lyophilized Cytokine Standard - 1 vial

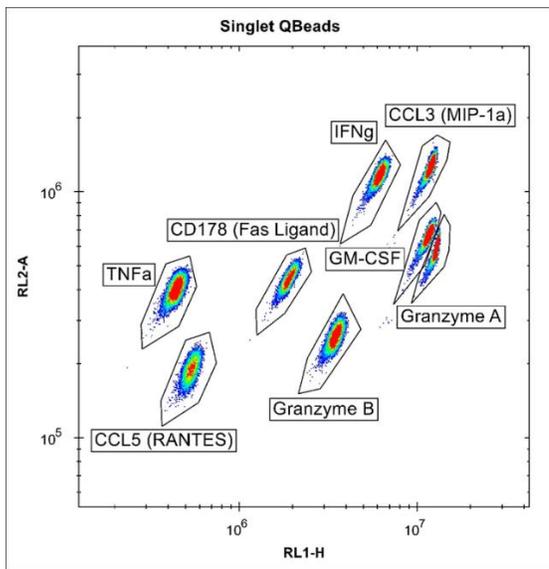
Cytokine Capture Beads (50x) - 1 vial

Cytokine Detection Reagent - 1 vial

USB Flash Drive Containing Analysis Template

### Storage

Store at 2-8°C



**NOTE:** The templates from the specific Human NK Cell Mediated Killing Kit do not have the appropriate gating for the Companion Kit beads. Use the Human NK Cell Companion template for the full gating of all 8 cytokine beads. The Human NK Cell Companion Kits can only work with the Human NK Cell Mediated Killing Kit. See Section 11 of the Human NK Mediated Killing Kit manual for instructions on loading the experimental template from the USB key

Figure 1: Human NK Cell Companion Kit cytokine template.

## Use

Use in combination with the Human NK Cell Mediated Killing Kit. The Human NK Cell Companion Kits contain the reagent volumes needed to run a 1 x 384-well format or 2 x 96-well format Human NK Cell Mediated Killing Kit. Additional Human NK Cell Companion Kits are needed for use with a 5 x 96-well format and 5 x 384-well format of the Human NK Cell Mediated Killing Kit.

## Protocol and Procedure

### 1. Combine the Human NK Cell Companion Kit Cytokine Standard with the Cytokine Standards provided in the Human NK Cell Mediated Killing Kit:

- a. Combine the lyophilized Cytokine Standard spheres from the Human NK Cell Companion Kit with the Cytokine Standard spheres (IFN $\gamma$  and Granzyme B) from the Human NK Cell Mediated Killing Kit into a 1.5 mL microfuge tube or 15 mL conical tube.
- b. After combining all standards in a single tube, perform standard reconstitution and titration as outlined in Section 9.5 of the Human NK Cell Mediated Killing Kit manual.

### 2. Combine NK Cell Companion Kit Cytokine Capture Beads with the Cytokine Capture Beads Cocktail provided in the Human NK Cell Mediated Killing Kit:

- a. Vortex the Human NK Cell Companion Kit Cytokine Capture Beads for at least 15 seconds.
- b. Add the appropriate amount of NK Cell Companion Kit Cytokine Capture Beads to the pre-mixed Cytokine Capture Beads Cocktail provided in the Human NK Cell Mediated Killing Kit. Use volumes listed in **Table 1** below for your specific Human NK Cell Mediated Killing Kit configuration.

**3. Combine NK Cell Companion Kit Cytokine Detection Reagent with the Cytokine Detection Cocktail provided in the Human NK Cell Mediated Killing Kit:**

- a. Add the appropriate amount of Cytokine Detection Reagent from the Human NK Cell Companion Kit to the pre-mixed Cytokine Detection Cocktail provided in the Human NK Cell Mediated Killing Kit. Use volumes listed in **Table 1** below for your specific Human NK Cell Mediated Killing Kit configuration.

**4. Perform the Assay** – Follow the assay protocol for your particular Human NK Cell Mediated Killing Kit configuration as described in Section 10 of the Kit **Manual** or **Quick Guides**.

**Table 1.** Volumes of NK Cell Companion Kit Cytokine Capture Beads and Cytokine Detection Reagent to add to the Cytokine Capture Beads Cocktail or Cytokine Detection Cocktail provided in the Human NK Cell Mediated Killing Kit.

For each additional Human NK Cell Companion Kit, add volumes listed below to the respective cocktail vial provided in the Human NK Cell Mediated Killing Kit		
Human NK Cell Mediated Killing Kit format	Human NK Cell Companion Kit Cytokine Capture Beads (µL)	Human NK Cell Companion Kit Cytokine Detection Reagent (µL)
1 × 96-wells	40 µL /vial	40 µL /vial
5 × 96-wells	40 µL /vial	40 µL /vial
1 × 384-wells	95 µL /vial	95 µL /vial
5 × 384-wells	95 µL/vial	95 µL/vial

**NOTE:** Add the appropriate amount of Cytokine Capture Beads or Cytokine Detection Reagent from each additional Human NK Cell Companion Kit selected to the pre-mixed Cytokine Capture Beads Cocktail or Cytokine Detection Cocktail provided in your specific Human NK Cell Mediated Killing Kit configuration. Each Human NK Cell Companion Kit contains the reagent volumes needed to run a 1 x 384-well format or 2 x 96-well format of the Human NK Cell Mediated Killing Kit. Additional Human NK Cell Companion Kits are needed for use with 5 x 96-well format and 5 x 384-well format of the Human NK Cell Mediated Killing Kit.

## Sales and Service Contacts

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