

iQue[®] Human NK Cell Companion Kits

Immune Cell Phenotype and Function

Product Information

Kit Components	Storage	Stability
Catalog No. 97089 MIP-1 α	2-8°C	Minimum 6 month shelf life; up to one year
Catalog No. 97090 RANTES	2-8°C	
Catalog No. 97091 GM-CSF	2-8°C	
Catalog No. 97092 CD178 (Fas Ligand)	2-8°C	
Catalog No. 97093 Granzyme A	2-8°C	

Table 1. Kit Components and Storage.

Kit Components	Storage	Stability
Catalog No. 97094 TNF α	2-8°C	
Lyophilized Cytokine Standard 1 vial	2-8°C	
Cytokine Capture Beads (50x) 1 vial	2-8°C	
Cytokine Detection Reagent	2-8°C	

Table 2. Kit Components and Storage.

Note: A kit manual and a USB key with assay templates are also included in the kit package.

Background

The iQue[®] Human NK Cell Companion Kits can be used in combination with the iQue[®] Human NK Cell Killing Kit. The iQue[®] Human NK Cell Companion Kits allow the measurement of several human cytokines | effector proteins in addition to IFN γ and Granzyme B which are already included in the iQue[®] Human NK Cell Killing Kit. The additional cytokines | effector proteins offered in the iQue[®] Human NK Cell Companion Kits include: Human MIP-1 α (CCL3), RANTES (CCL5), GM-CSF, CD178 (Fas Ligand), Granzyme A, and TNF γ .

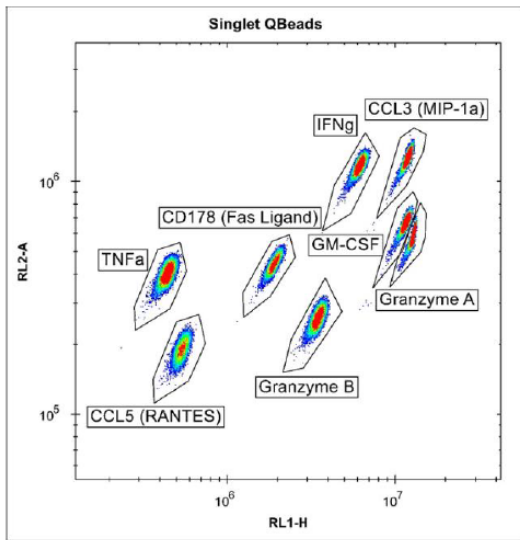


Figure 1: iQue® Human NK Cell Companion Kit cytokine template.

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

Use

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

Protocol and Procedure

1. Combine the iQue® Human NK Cell Companion Kit(s) Cytokine Standard with the Cytokine Standards provided in the iQue® Human NK Cell Killing Kit:

- 1.1 Combine the lyophilized Cytokine Standard spheres from the iQue® Human NK Cell Companion Kit(s) with the Cytokine Standard spheres (IFN γ and Granzyme B) from the iQue® Human NK Cell Killing Kit into a 1.5 mL microfuge tube or 15 mL conical tube.
- 1.2 After combining all standards in a single tube, perform standard reconstitution and titration as outlined in **Section 6.5** of the iQue® Human NK Cell Killing Kit manual.

2. Combine the iQue® Human NK Cell Companion Kit(s) Cytokine Capture Beads with the Cytokine Capture Beads Cocktail provided in the iQue® Human NK Cell Killing Kit:

- 2.1 Vortex the iQue® Human NK Cell Companion Kit(s) Cytokine Capture Beads for at least 15 seconds.
- 2.2 Add the appropriate amount of iQue® Human NK Cell Companion Kit Cytokine Capture Beads to the pre-mixed Cytokine Capture Beads Cocktail provided in the iQue® Human NK Cell Killing Kit. Use volumes listed in **Table 1** below for your specific iQue® Human NK Cell Killing Kit configuration.

3. Combine the iQue® Human NK Cell Companion Kit(s) Cytokine Detection Reagent with the Cytokine Detection Cocktail provided in the iQue® Human NK Cell Killing Kit:

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

4. Perform the Assay

- 4.1 Follow the assay protocol for your particular iQue® Human NK Cell Killing Kit configuration as described in **Section 7** of the Kit Manual or Quick Guides.

For each additional iQue® Human NK Cell Companion Kit, add volumes listed below to the respective cocktail vial provided in the iQue® Human NK Cell Killing Kit.

iQue® Human NK Cell Killing Kit format	iQue® Human NK Cell Companion Kit Cytokine Capture Beads (µL) (Add to the Cytokine Capture Beads Cocktail)	iQue® Human NK Cell Companion Kit Cytokine Detection Reagent (µL) (Add to the Cytokine Detection Cocktail)
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

Table 3. Volumes of iQue® Human 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 iQue® Human NK Cell Killing Kit.

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

Sales and Service Contacts

For further contacts, visit
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