

# Human T Cell Companion Kits

## Product Information

The iQue® Human T Cell Companion Kits are used in combination with the Human T Cell Immunology portfolio of kits. Human T Cell Companion Kits allow the measurement of human cytokines in addition to the cytokines already included in the Human T Cell Immunology Kits.

### List of Available Products

- Cat. No. 97028 IL-2
- Cat. No. 97029 IL-6
- Cat. No. 97030 IL-10
- Cat. No. 97031 IL-13
- Cat. No. 97032 IL-17A
- Cat. No. 97033 GM-CSF
- Cat. No. 97034 TNF $\alpha$

### Components

- Detection reagent (50X)—90  $\mu$ L
- Capture beads (50X)—90  $\mu$ L
- Lyophilized standard—1 vial
- USB flash drive containing analysis template

### Storage

Store at 2–8 °C

### Use

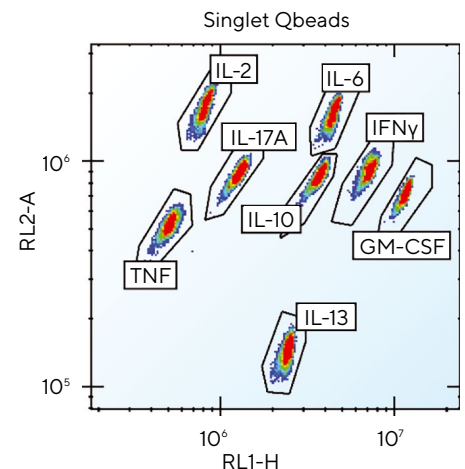
Use in combination with iQue® Human T Cell Immunology Kits. The Human T Cell Companion Kits contain the reagent volumes needed to run a 1  $\times$  384-well format or 4  $\times$  96-well format of the Human T Cell Immunology Kits. Additional Human T Cell Companion Kits are needed for use with 5  $\times$  96-well format and 5  $\times$  384-well format of the Human T Cell Immunology Kits.

### Notes

The templates from the specific Human T Cell Immunology Kits do not have the appropriate gating for the companion kit beads. Use the Human T Cell Companion Kit template (see Figure 1 for the full gating of all 8 cytokine beads). The Human T Cell Companion Kits can only be used in conjunction with the iQue® Human T Cell Immunology portfolio of Kits.

The Human T Cell Companion Kits contain the reagent volumes needed to run a 1  $\times$  384-well format or 4  $\times$  96-well format of Human T Cell Immunology Kits. Additional Human T Cell Companion Kits are needed for use with 5  $\times$  96-well format and 5  $\times$  384-well format of Human T Cell Immunology Kits.

**Figure 1**  
*Human T Cell Companion Kit Cytokine Template*



# Protocol

## 1. Combine Standards

- 1.1 Combine the Human T Cell Companion Kit standards with the standards in the Human T Cell Immunology Kit. For example, the Human T Cell Activation Kit provides 2 cytokine standards: IFN $\gamma$  and TNF $\alpha$ . If you purchased IL-2 and IL-6 Human T Cell Companion Kits, combine all 4 cytokine standards together in a single tube (IL-2, IL-6, IFN $\gamma$ , and TNF $\alpha$ ).
- 1.2 After combining all additional cytokine standards in a single tube, follow the protocol in the Human T Cell Immunology Kit protocol guide. Perform standard reconstitution and titration.

## 2. Combine Human T Cell Companion Kit Capture Beads (50X)

- 2.1 To the pre-mixed capture beads in the Human T Cell Immunology Kit, add the appropriate amount of Human T Cell Companion Kit capture beads to the kit vial.

- 2.2 Vortex the Human T Cell Companion Kit capture beads for 30 seconds. Use volumes listed in the tables below for your specific Human T Cell Immunology Kit type and configuration.

## 3. Combine Human T Cell Companion Kit Detection Reagent (50X)

- 3.1 To the pre-mixed cytokine detection cocktail in the Human T Cell Immunology Kit, add the appropriate amount of detection reagent to the kit vial. Use volumes listed in the tables below for your specific Human T Cell Immunology Kit type and configuration.

## 4. Perform the Assay

- 4.1 Follow the protocol for your particular Human T Cell Immunology Kit and configuration.

### Reagents Included in Human T Cell Activation Kit

	1 × 96-well	5 × 96-well	1 × 384-well	5 × 384-well
Human IFN $\gamma$ and TNF $\alpha$ Separate Standards (1 Vial Each)	1 IFN $\gamma$ 1 TNF $\alpha$	5 IFN $\gamma$ 5 TNF $\alpha$	2 IFN $\gamma$ 2 TNF $\alpha$	10 IFN $\gamma$ 10 TNF $\alpha$
Human IFN $\gamma$ and TNF $\alpha$ Capture Beads (pre-mixed)	1.25 mL	6.25 mL	2.50 mL	12.50 mL
Cytokine Detection Cocktail	1.25 mL	6.25 mL	2.50 mL	12.50 mL

### For Each Human T Cell Companion Kit Cytokine, Add Volumes Listed Below to Original Kit Components

	1 × 96-well	5 × 96-well	1 × 384-well	5 × 384-well
Human Cytokine Standard (vials)	1 standard	Combine Human T Cell Companion Kit standard(s) with IFN $\gamma$ and TNF $\alpha$ Kit standards prepared fresh on each day of use		
Human T Cell Companion Kit Capture Beads (50X) Add volume to the human IFN $\gamma$ and TNF $\alpha$ Capture Beads (pre-mixed)	25 $\mu$ L	Use volumes listed for each 1 × 96-well format and scale up as needed for number of plates per day	50 $\mu$ L	Use volumes listed for each 1 × 384-well format and scale up as needed for number of plates per day
Companion Detection Reagent (50X) Add volume to the Cytokine Detection Cocktail	25 $\mu$ L		50 $\mu$ L	

Human T Cell Activation Kit: fill amounts are for a full 96, or 384-well format.

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