

# Simple Plex™ Lyophilized Quality Control

## Storage and Stability

- Store lyophilized controls at 2-8° C. Lyophilized controls are stable for up to 12 months from date of receipt.
- Reconstituted controls are stable for up to 6 months from date of preparation when stored at  $\leq -70^{\circ}\text{C}$ .
- Storage at  $-20^{\circ}\text{C}$  is not recommended.
- Individual frozen aliquots of low and high controls are designed as single-use entities. Thaw directly before use and discard any remaining volume.
- **Use of controls in a configuration that is not a defined Simple Plex part number is unsupported and not recommended.**

## Procedure

1. Prior to use, allow sample diluent to reach room temperature.
2. Reconstitute each lyophilized control concentrate with appropriate volume of sample diluent (refer to Control COA for respective analyte). Allow each control to mix using gentle agitation (e.g. nutator) for a minimum of 15 minutes, but no more than 30 minutes.

*\*If running TGF- $\beta$ 1, use RD5P (1X) for reconstitution of lyophilized material and all subsequent dilutions.*

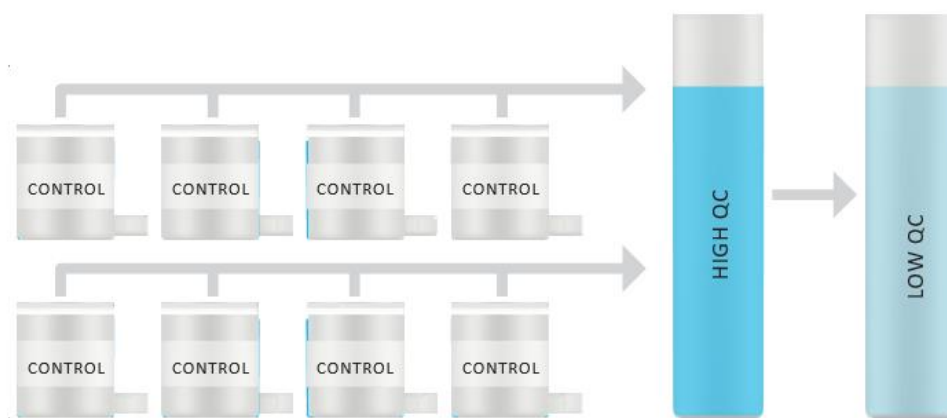
3. To prepare the high control refer to Table 1. To prepare the low control Refer to Table 2. Mix high and low controls thoroughly.

*\*If running BAFF or CCL8, see table 3a for instructions on how to prepare high controls.*

*\*If running ITAC, see table 3b for instructions for preparing low controls.*

4. Once controls are made, prepare single-use 75  $\mu\text{L}$  aliquots of high control and 75  $\mu\text{L}$  aliquots of low control. Label appropriately and freeze at  $\leq -70^{\circ}\text{C}$  for a minimum of 24 hours.
5. Thaw immediately prior to use. Load 50  $\mu\text{L}$  per sample inlet, using instructions from the Product Insert.

**Note:** No further dilution required for controls.



**FIGURE 1.** Preparation of the high and low controls.

**Table 1. Preparation of High Controls**

NUMBER OF UNIQUE CONTROL CONCENTRATES	VOLUME OF EACH CONTROL CONCENTRATE TO ADD TO MAKE HIGH CONTROL (µL)	VOLUME OF SAMPLE DILUENT TO ADD TO MAKE HIGH CONTROL (µL)
1	120	3880
2	120	3760
3	120	3640
4	120	3520
5	120	3400
6	120	3280
7	120	3160
8	120	3040

**Table 2. Preparation of Low Controls**

VOLUME OF HIGH CONTROL OR SAMPLE DILUENT TO ADD TO MAKE LOW CONTROL (µL)	
High Control	80
SDXX	3920

(XX=Diluent type)

**Table 3a. Preparation of BAFF/CCL8 High Controls**

HIGH CONTROL DILUTION EXCEPTIONS	VOLUME OF CONTROL CONCENTRATE TO ADD TO MAKE HIGH CONTROL (µL)	VOLUME OF SAMPLE DILUENT TO ADD TO MAKE HIGH CONTROL (µL)
BAFF	30	3970
CCL8	40	3960

**Table 3b. Preparation of ITAC Low Controls**

VOLUME OF ITAC HIGH CONTROL OR SAMPLE DILUENT TO ADD TO MAKE LOW CONTROL (µL)	
High Control	40
SD16	3960