

LEVICELL EOS

BEAD TEST

A. Prepare Reagents

1. Vortex bead tubes thoroughly immediately before pipetting to avoid sedimentation.
2. In a new 1.5 mL tube, prepare the sample mixture as shown in Table 1 for the number of lanes being loaded.

Reagent/	# of Lanes to run Volume (µL)			
	1 Ln	2 Ln	3 Ln	4 Ln
LeviCell EOS Install Buffer	176	352	528	704
1 M Levitation Agent	32	64	96	128
LeviCell® EOS Green Bead 1	16	32	48	64
LeviCell® EOS Red Bead 2	32	64	96	128
Total	256	512	768	1024

Table 1. Bead Sample Preparation with Final Levitation Agent Concentration of 125mM (1-4 lanes)

3. Vortex the sample to thoroughly mix the reagents.
4. If counting, set aside 20-30 µL of the input beads immediately after mixing.
Please refer to the User Manual for instructions on counting and yield evaluations.

B. Prepare Bead Sample for Loading

1. Start the EOS Manager on the Control PC and click **Start New Run**.
2. Scan cartridge barcode, then click **Next**.
3. Fill in run information and choose your EOS module.
4. Select **Bead Test 4 min** protocol and Ambient run temperature, then click **Next**.
5. If fewer than 4 lanes are being run, de-select the lane numbers on the cartridge diagram so they are no longer highlighted in gold.
6. In the “Select and specify samples to run” screen, check the box labeled “Same Levitation Agent concentration or fluorescence stains for all samples”, and fill in the details per table below.

Sample name ¹	LA (mM)	Green fluorescence	Red fluorescence
Bd1	125	Bright Green Stain	Bright Red Stain
Bd2	125	Bright Green Stain	Bright Red Stain
Bd3	125	Bright Green Stain	Bright Red Stain
Bd4	125	Bright Green Stain	Bright Red Stain

Table 2. Levitation Agent (LA) concentration/fluorescent stains

¹Name does not have to be unique and can be changed per user preference.

- Click **Next** to begin the run and follow prompts per instructions on the screen.



NOTE: When prompted to dispense samples, pipette mix sample well immediately before dispensing 220 µL per lane into the cartridge.

- “Split line value” is 0 for the bead test. Once the timer on the instrument has concluded, click on **Start Collection**.
- Follow prompts to finish the run.
- Retrieve your cartridge and place it on a flat surface. Hold the edges (Figure 1) of the cartridge down firmly and remove the outlet well covers to collect your samples for further analysis if desired. The Green Beads are in the top (**T1-T4**) wells. The Red Beads are in the bottom (**B1-B4**) wells.



NOTE: Pipette mix each sample 3-5X before retrieval, aspirating only from the well.



Figure 1: EOS-4 outlet wells and gripping points

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