Sort Request Form

This form is for new users AND for users who have previously used the facility but are bringing a new project and cell type to be sorted. Sony MA900 cell sorter is a shared instrument where many different samples from various sources that may contain known or unknown human pathogens are investigated. The safety of the staff and users of the facility is our No.1 concern. Information about the sample sources and potentially infectious agents is critical for effective biosafety measures. Therefore, please be sure to provide accurate information on this sort request form. **This form must be filled out completely and signed by PI** for EACH sort requested. Failure to disclose known biohazards will results in a permanent ban from the Service Center.

Date_____

	Principal Investigator	**Researcher sending samples to facility**
Name:		
Phone No.		
E-mail		

PROJECT INFORMATION

Project title:	
Summary or short description of project.	

SAFETY INFORMATION

1. BAF Number: _____

   IBC approved sorting biosafety level : ☐ BSL1 ☐ BSL2 ☐ BSL2-enhanced

2. Are the cells in the sample fixed, with all potentially infectious agents inactivated?

   ☐ Yes ☐ No If yes, please indicate the fixation method: _____

3. Are samples primary or established human cells? ☐ Yes ☐ No
   What type? _____
   If not of human origin, please identify the cells to be sorted (type of cells and source):
   _____

4. Does the sample contain known infectious agents? ☐ Yes ☐ No
   If yes, please list all infectious agents present in the sample: _____
5. Were these cells transformed using any virus (EBV, HTLV-1, etc)? ☐ Yes ☐ No
   If yes, please list all viruses present in the sample, and the generation if applicable:
   _____

6. Have these cells been transfected with a virus, nucleic acid, viral vector, or any other pathogen? ☐ Yes ☐ No
   If yes, list the vector by name and describe the method of delivery of the r/s NA molecules (e.g. transfection with expression plasmid, lentivirus transduction): _____

7. Were the cells genetically engineered? ☐ Yes ☐ No
   If yes, and a virus was used, please describe the method in detail:
   _____
8. Are any of these genes oncogenes or toxins? ☐ Yes ☐ No ☐ N/A
   If yes, list the genes/ toxins: _____

SORTING INFORMATION

1. Fluorochromes used: _____
2. Number of samples to be analyzed/sorted: _____
3. Estimated total number of cells to be sorted - per sample: _____
4. Relative Cell Size: _____

5. Collection criteria: Temperature for sample to be sorted: ☐ 5ºC ☐ 37 ºC

   Collection Temperature ☐ 5ºC ☐ room temp

6. Are the cells an adherent line? ☐ Yes ☐ No

   Are the cells treated with trypsin? ☐ Yes ☐ No

   If yes, has trypsin been inactivated? ☐ Yes ☐ No

7. Has the sample been treated with DNase? ☐ Yes ☐ No

8. Phenol red or other dye in the sample? ☐ Yes ☐ No

9. The sample(s) will be sorted into: ☐ Tubes ☐ Plates ☐ Slides

   If the sample(s) will be sorted into plates, please indicate the number of wells in the plate and how many sorted cells per well (e.g. 20 cells per well, 32 wells in a 96 well plate):

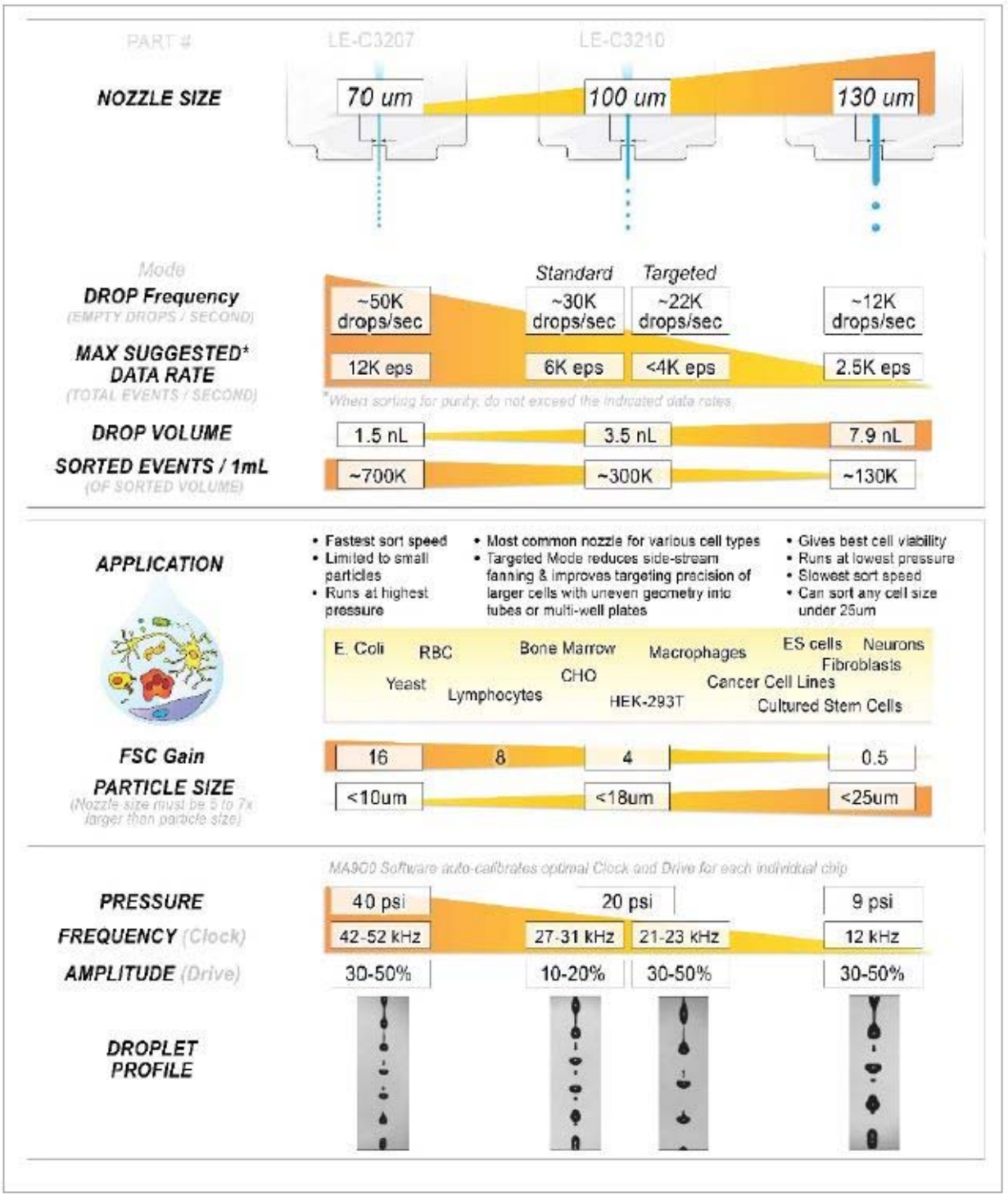
   _____

10. Which nozzle will be used? ☐ 70um ☐ 100um ☐ 130um

    If unsure about which nozzle to choose, please find the details about the nozzle size in the following picture, or contact the operator to discuss choice of nozzle size.

PI Signature (Print/ Sign) _____

Date_____


PART #
LE-C3207
LE-C3210
NOZZLE SIZE
70 um
100 um
130 um
Mode
Standard
Targeted
DROP Frequency
(EMPTY DROPS / SECOND)
~50K drops/sec
~30K drops/sec
~22K drops/sec
~12K drops/sec
MAX SUGGESTED* DATA RATE
(TOTAL EVENTS / SECOND)
12K eps
6K eps
<4K eps
2.5K eps
*When sorting for purity, do not exceed the indicated data rates.
DROP VOLUME
1.5 nL
3.5 nL
7.9 nL
SORTED EVENTS / 1mL
(OF SORTED VOLUME)
~700K
~300K
~130K
APPLICATION
• Fastest sort speed
• Limited to small particles
• Runs at highest pressure
• Most common nozzle for various cell types
• Targeted Mode reduces side-stream fanning & improves targeting precision of larger cells with uneven geometry into tubes or multi-well plates
• Gives best cell viability
• Runs at lowest pressure
• Slowest sort speed
• Can sort any cell size under 25um
E. Coli
RBC
Bone Marrow
Macrophages
ES cells
Neurons
Fibroblasts
Yeast
CHO
Cancer Cell Lines
Lymphocytes
HEK-293T
Cultured Stem Cells
FSC Gain
16
8
4
0.5
PARTICLE SIZE
(Nozzle size must be 5 to 7x larger than particle size)
<10um
<18um
<25um
MA900 Software auto-calibrates optimal Clock and Drive for each individual chip
PRESSURE
40 psi
20 psi
9 psi
FREQUENCY (Clock)
42-52 kHz
27-31 kHz
21-23 kHz
12 kHz
AMPLITUDE (Drive)
30-50%
10-20%
30-50%
30-50%
DROPLET PROFILE