The Huck Institute of the Life Sciences
Flow Cytometry Facility
W-124A Millennium Science Complex
814-863-2762

Sorting Request Form

Part 1: Biosafety Registration

Date of sort: _____ User: _____ Phone # _____ PI: _____

1. What is the Biosafety Level (BSL) assigned to these cells? ☐ **1** ☐ **2**
   All BSL 2 specimens, including human derived materials, must have IBC approval.

2. Have your cells been approved by the Penn State IBC? ☐ **NO** ☐ **YES**
   If yes, Approval Form # for these cells: _____

3. Were these same cells previously approved by Flow Cytometry Facility for sorting?
   ☐ **NO** Attach IBC form(s), if required, and continue to complete the form.
   ☐ **YES** Date: Any changes? ☐ **Y** ☐ **N** (New risk agent require proper approval)

4. Cell type and Cell Diameter: **µm**

☐ Animal	☐ Human	☐ Microbe	☐ Plant	☐ Other(please list)

5. Name (species, strain, etc.):

   ☐ Primary (if cultured, list # of days): _____
   Origin (i.e., marrow, blood, tissue type)? _____
   ☐ Cell Line, ATCC/DSMZ number(s): _____

6. Potential infectious agents associated with the material (mark all that apply):
   ☐Bacteria ☐Virus ☐Fungi ☐Parasite ☐Rickettsia ☐Other:
   Describe: _____

7. Recombinant agents associated with material (retrovirus, lentivirus, replication competent/defective, tropism, oncogenes, etc.) and recombinant construct used [include name]:

8. Please provide the following when submitting this sorting form
   a. Sample Preparation Protocol
   b. Staining Protocol

9. **Compliance**: Your signature below indicates your compliance with the following:
   You are in agreement to follow all biosafety protocols associated with your work in the Flow Cytometry Facility. This may include: Environmental Health & Safety courses Biosafety 101 and Blood Borne Pathogen (re)training.
   You ensure that all work completed with this sample material, including its collection, manipulation, and transport, is in accordance with all Penn State and federal guidelines appropriate for this material and have been approved by the Penn State Institutional Biosafety Committee (IBC).
   You assure that this form accurately reflects all identities and hazards involving biohazardous material(s).

Signature of User and Principal Investigator verifying review and accuracy of the above answers:

Signature (User) _____ **Signature (PI)** _____ Date _____
(Required of each time sample is submitted) (Required with first submission of this sample type)
Cost Center to charge: _____

Facility use only:

Approved by:	Date:	BSL Level for sorting:

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Part 2: General Information of Experiment/Sample: (Include for each sample if stained differently)

1. Briefly describe the purpose of the experiment, list sample and control tubes.

2. Astrios Panel/ Fluorochromes to be used and the gating strategy. (Contact the facility if you need help)

	Laser	Band	Fluorochrome	Target	Notes/ Gating
UV	355	448/59			
	355	620/29			
	355	692/75			
Violet	405	448/59			
	405	546/20			
Blue	488	513/26			
	488	576/21			
	488	620/29			
	488	664/22			
	488	710/45			
	488	795/70			
Green	532	576/21			
	532	622/22			
	532	664/22			
	532	692/18			
	532	736/47			
Red	640	671/30			
	640	722/44			
	640	795/70			

3. Cell populations to sort (collect) from the sample (up to 6 sub populations from each sample)

No	Population ID	% of total	# To collect	Theoretical # needed	Markers/Phenotype
1					
2					
3					
4					

4. Calculate theoretical # and recommended # of cells you need to start with: *Post staining and post filtering cell counts are the most accurate.

Recommended starting# (2x theoretical #) =	

5. Calculate the length of time for each sample: Astrios, flow rate for medium sort is 6,000/sec, slow sort is 2,000/sec.

Time (Starting number / Flow rate per sample) =	

6. Sample concentration **(**Recommended: 5 to 25 million cells/ml):
7. Cells are ☐ robust ☐ fragile Cell Size**:** **µm**
8. Number of Samples: ***[Provide unstained, +/- control, FMO and compensation tubes if relevant]***
9. Temperature: ☐ RT ☐ 4°C ☐ 37°C ☐ other (list)
10. Sorting into: ☐ Collection tubes (1.5, 5, 15, 50ml) or ☐ multi-well plate
11. Collection Media: FBS / PBS / Other