

Instructions for collecting single cells (nuclei)

Version: TISP170529

Single cell collection can be performed using multiple methods such as mouth pipette [1], Fluorescence-Activated Cell Sorting (FACS) [2] or CellRaft system [3].

Sample requirement

Single cells (nuclei) in individual 0.1 or 0.2-ml PCR tubes with 2.5 μ l 1 x PBS (excluding calcium and magnesium).

Store at -80°C .

In addition to accepting single cells (nuclei), we also provide single cell isolation service using CellRaft and its sample requirements can be found [here](#).

Instructions for single cell (nucleus) isolation using FACS

Before FACS

1. Prepare PCR tube strips (with cap strips) with 2.5 μ l PBS.

Suggestions:

- Avoid any contamination by working under the PCR workstation or biological safety cabinets.
- We recommend using the Eppendorf 0.1mL PCR Tubes and Cap Strips (Eppendorf catalog number: [0030124820](#)).

2. Quickly spin tubes to bring the PBS to the bottom of the tubes.
3. Prepare a FACS machine.

Caution: The FACS machine needs to be adjusted before sorting every time to ensure that cells are placed in the middle of the tubes.

Suggestion: Use a slightly wider nozzle if possible to avoid damaging the cells/nuclei.

After FACS

1. Deposit single cells (nuclei) into PCR tube strips.

Caution: Please ensure that cells are placed in the middle of the tubes in the PBS buffer, not on the side of the tubes.

2. Quickly spin tubes.
3. Freeze immediately on dry ice.
4. Store at -80°C .

For further assistance, please contact support@singulomics.com.

References

1. Spits, C., et al., *Whole-genome multiple displacement amplification from single*

- cells. Nat Protoc, 2006. 1(4): p. 1965-70.
2. Basu, S., et al., *Purification of specific cell population by fluorescence activated cell sorting (FACS)*. J Vis Exp, 2010(41).
 3. <http://cellmicrosystems.com/>.