

Protocol for the Recuperation of Cells for Flow Cytometry

Overview: This protocol is used to recuperate cells from a cell-laden 3D bioprinted construct, for subsequent analysis by Flow Cytometry.

Materials:

- PBS with 2 mM EDTA and 0.5% BSA
- Cell strainer (40 µm nylon)
- 1 ml pipette and pipette tips
- Centrifuge
- Cell-laden 3D bioprinted constructs

Protocol:

1. Gently dissociate the cell-laden construct by pipetting 5-10 times with a 1 ml pipette. Take care not to produce air bubbles
2. Add the suspension to a cell strainer
3. Wash the cell strainer 3x with 2ml PBS-EDTA-BSA
4. Centrifuge the recuperated cell suspension at 2000 RPM for 5 minutes
5. Remove the supernatant
6. Resuspend the cell pellet and run the Flow Cytometry analysis according to your protocol of choice.

Further Information:

This protocol is courtesy of Lisa Oliver, PhD, at the University of Nantes, France.