

Genetics & IVF Institute

PREPARATION AND SHIPMENT OF BIOPSY SAMPLES FOR MICROARRAY ANALYSIS

Day 3 Blastomere Biopsy

1. Observe the Day 3 (D3) embryos at a convenient time in the morning to determine which embryos can be biopsied. Good quality embryos with at least five cells should be considered for biopsy.
2. One intact, nucleated cell should be biopsied from each embryo. Complete the biopsy in time for the samples to be packed and shipped overnight to the PGD Lab at GIVF (see below).
3. The embryo biopsy may be performed in whichever medium your laboratory normally uses. A calcium-free, magnesium-free medium is recommended but not required. Ensure that the biopsied cell has a clearly visible nucleus. We recommend changing biopsy tools after each embryo is biopsied. After the biopsy, keep the embryos separated by moving them to individually numbered droplets in culture medium appropriate for D3 to Day 5 culture.
4. Prepare two rinse droplets of approximately 20 uL each for each biopsy sample using the provided phosphate buffered saline with fetal bovine serum (PBS/FBS). Rinse the biopsied cell through each droplet, then transfer the cell, in approximately 2.5 uL of PBS/FBS, to one of the provided 0.2 mL thin-walled PCR tubes. Use a new pipet tip for each sample. Each PCR tube should be clearly labeled using a permanent marker with the patient's initials and the embryo number. Using a mini centrifuge (i.e. picofuge), pulse spin the tube containing the blastomere for a few seconds to ensure the cell remains in the buffer at the bottom of the tube at the time of freezing. Place each sample in a -20 or -80°C freezer immediately.
5. Prepare a negative control sample by placing 2.5 uL of the provided PBS/FBS into another labeled 0.2 mL thin walled PCR tube. Place the negative control sample in the freezer with the biopsy samples. The PGD Lab at GIVF will prepare a positive control sample for the diagnostic assay.
6. Pack all of the biopsy samples and the negative control sample on dry ice using the provided tube rack with the lid securely closed. Ship the samples to the PGD Lab at GIVF using the provided styrofoam container filled with 7 to 10 lbs. of dry ice. Any overnight carrier can be used, but for Friday and Saturday pick-ups (to be delivered to GIVF on Saturday and Sunday) we recommend that you ship via Marken Express (1-800-932-6755). Please complete the provided "Biopsy Record" and send it with the biopsy samples. In addition, please send an e-mail to the PGD Lab at GIVF to provide us with a tracking number for the shipment.

PGD Lab at GIVF shipping and contact information:

PGD Lab at the Genetics & IVF Institute

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