



# CELL AUTHENTICATION TESTING SERVICE

## HUMAN STR TESTING

### SAMPLE PREPARATION INSTRUCTIONS

**Note:** Note: Cells should be spotted at a target density of  $1 \times 10^6$  cells/mL on FTA™ paper. Cell counting is recommended as cells spotted at a density less than  $0.8 \times 10^6$  cells/mL or greater than  $1.7 \times 10^6$  cells/mL may not yield acceptable results.

1. Fill out a separate Cell Authentication Sample Submission Form for each sample submitted. Be sure the Barcode Number on the top of the Sample Submission Form matches the Barcode Number on the Sample Collection Card.
2. Prepare the samples one at a time at an optimal target cell density of  $1 \times 10^6$  cells/mL.
  - a. For attached cells: Trypsinize and centrifuge at 125 x g. Discard the supernatant and resuspend the cell pellet in a small volume of PBS. Count the cells and dilute the sample to  $1 \times 10^6$  cells/mL. If the cells are too dilute, re-centrifuge and resuspend them in a volume of PBS that will result in a spotting density of  $1 \times 10^6$  cells/mL.
  - b. For suspension cells: Harvest and count the cells. If cell density is greater than  $1.7 \times 10^6$  cells/mL, dilute the sample in PBS to  $1 \times 10^6$  cells/mL. If cell density is less than  $0.8 \times 10^6$  cells/mL, centrifuge the cells and resuspend them in a volume of PBS that will result in a cell density of  $1 \times 10^6$  cells/mL.
3. Before handling the Sample Collection Card, thoroughly clean the work surface. With gloved hands, carefully open the Sample Collection Kit and remove the Sample Collection Card. **Important:** *Wear gloves when handling the Sample Collection Cards to avoid cross-contamination with your own DNA.*
4. Clearly label the Sample Collection Card with the cell line name/designation. If sending multiple cell lines, use a separate card for each cell line and make sure the information on the card matches the information on the Sample Submission Form.
5. Carefully mix and spot 40  $\mu$ L of the cell suspension prepared in step 2 above at  $1 \times 10^6$  cells/mL in the center of the circle on the inside of the Sample Collection Card.
6. Allow the Sample Collection Card to air dry in a laminar flow hood at room temperature (recommended drying time is at least 15 minutes).
7. When the Sample Collection Card is dry, place it and one desiccant pack (provided with the Kit) in the Multibarrier Pouch. **Important:** *To avoid cross-contamination, use one Multibarrier Pouch per sample being submitted.*
8. Be sure to completely close the Multibarrier Pouch to preserve and protect the sample.
9. Repeat this process for each sample being submitted for testing, manipulating only one cell line at a time to avoid cross-contamination.
10. When the cell lines have been spotted and sealed in separate Multibarrier Pouches, place them and the completed corresponding Sample Submission Forms into the pre-addressed Return Envelope(s). If space allows, you may place multiple Multibarrier Pouches into one Return Envelope (be sure to include the Sample Submission Form(s)).
11. Affix the appropriate postage and place the sealed, pre-addressed Return Envelope(s) in the mail. If using an overnight service, please send the sample to the address listed on the pre-addressed Return Envelope. **Important:** *For International Customers, please add the words "FTA Sample Papers" to the item description on your Air Waybill labels to avoid delays when mailing your samples.*

### Checklist

Before mailing your sample, did you?

- Complete the Submission Form, be sure to complete the hazard statement
- Spot the cells in the Sample Card and place the card in the Ultra-barrier Pouch
- Include the Submission Form and Multibarrier Pouch containing FTA Sample Card in the pre-addressed Return Envelope
- If mailing more than one sample, please be sure to match the FTA Card barcode number with the Submission Form barcode number
- Add words "FTA Sample Papers" to item description on Air Waybill labels
- Mail the pre-addressed Return Envelope

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**KEEP THIS PORTION FOR YOUR RECORDS.** Not For Medical Diagnostic Use.

### Cell Authentication Service – Human STR Testing

