



# CELL AUTHENTICATION TESTING SERVICE

## MOUSE STR TESTING

### SAMPLE PREPARATION INSTRUCTIONS

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.

You can submit your samples in 1 of 2 formats.

1. Cells spotted on FTA™ paper
2. DNA spotted on FTA™ paper

#### For cells spotted on FTA™ paper

Note: Cells should be spotted at a target density of  $1 \times 10^6$  cells/mL. 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. 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  $125 \times g$  for 5 to 7 minutes. Discard the supernatant and suspend the cell pellet in a small volume of phosphate buffered saline (PBS). Count the cells and dilute the sample to  $1 \times 10^6$  cells/mL. If the cells are too dilute, re-centrifuge and suspend 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 suspend them in a volume of PBS that will result in a cell density of  $1 \times 10^6$  cells/mL.
2. Continue to Step 3 to spot the cells.

#### For DNA spotted on FTA™ paper

Note: DNA should be spotted at a target concentration of 20 ng/ $\mu$ L. Quantitation of DNA is recommended as DNA spotted at a concentration less than 15 ng/ $\mu$ L or greater than 30 ng/ $\mu$ L may not yield acceptable results.

1. Prepare the samples one at a time at an optimal target DNA concentration of 20 ng/ $\mu$ L.
2. Continue to Step 3 to spot the DNA.

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 or DNA prepared in step 1 above at  $1 \times 10^6$  cells/mL or 20 ng/ $\mu$ L 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?

- |                                                                                                                                                |                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Complete the Submission Form, be sure to complete the hazard statement                                                | <input type="checkbox"/> If mailing more than one sample, please be sure to match the FTA Card barcode number with the Submission Form barcode number |
| <input type="checkbox"/> Include the Submission Form and Multibarrier Pouch containing FTA Sample Card(s) in the pre-addressed Return Envelope | <input type="checkbox"/> Add words "FTA Sample Papers" to item description on Air waybill labels                                                      |
|                                                                                                                                                | <input type="checkbox"/> Mail the pre-addressed Return Envelope                                                                                       |

Continues on back

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

### Cell Authentication Service – Mouse STR Testing

10801 University Boulevard  
Manassas, Virginia 20110-2209

703.365.2700

703.365.2701

sales@atcc.org

www.atcc.org

