



## *Manufacturer's Information*

### **Test No. 24-5901/2: Probabilistic Genotyping**

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Each sample set consisted of two known bloodstains provided on either white fabric or FTA™ Micro Cards (Items 1 and 2), and two questioned stains on colored fabric (Items 3 and 4). Participants were asked to analyze these items using their existing protocols.

**SAMPLE PREPARATION:** The substrates for Items 1, 2, and 3 were prepared using human whole blood which was either drawn into citric acid preservative bags or EDTA tubes. The substrates for Item 4 were prepared using a mixture of human whole blood and semen. The white fabric known bloodstains were spotted with 50  $\mu$ L of sample and the FTA™ Micro Card known bloodstains were spotted with 75  $\mu$ L of sample. Item 1 was created using blood from a female donor. Item 2 was created using blood from a male donor. Item 3 was created by combining one part blood from the Item 1 female donor, one part blood from the Item 2 male donor, and one part blood each from another female and male donor whose known standards were not provided. Item 4 was created by combining one part blood from the Item 1 female donor, one part blood from the Item 3 additional female donor, and one part semen from another male donor whose known standard was not provided. The items were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on February 05, 2024.

**SAMPLE SET ASSEMBLY:** For each sample set, all Items (1-4) were packaged into separate envelopes and then placed together in a pre-labeled sample set envelope and sealed. The sealed sample set envelopes were then packaged in pre-labeled heat seal envelopes and sealed. This process was repeated until all of the sample sets were prepared.

**VERIFICATION:** Predistribution interpretation results were consistent with each other and the manufacturer's preparation information. Consistent allelic results were reported for all STR loci across both substrates, with the exception of Item 3. Predistribution participants were missing one or more alleles at a few loci. After completion of an internal investigation the test was approved for release. Consistent allelic results were reported for all YSTR loci across both substrates.

#### **Key to Test Substrates**

5901 - Cloth Swatches

5902 - FTA™ Micro Cards

**Manufacturer's Information, continued**  
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**Amelogenin and STR Results**

*Results compiled from predistribution laboratories and a consensus of at least 10 participants.*

| Item    | D1S1656            | D2S1338        | D2S441       | D3S1358                       | D5S818     | D6S1043        |
|---------|--------------------|----------------|--------------|-------------------------------|------------|----------------|
|         | D7S820             | D8S1179        | D10S1248     | D12S391                       | D13S317    | D16S539        |
|         | D18S51             | D19S433        | D21S11       | D22S1045                      | Amelogenin | CSF1PO         |
|         | FGA                | Penta D        | Penta E      | SE33                          | TH01       | TPOX           |
|         | vWA                | DYS391         | DYS570       | DYS576                        | Y Indel    |                |
| 1       | 14,15              | 21,25          | 11,11        | 16,17                         | 10,11      | 14,17          |
|         | 8,8                | 13,14          | 12,16        | 18,19                         | 12,12      | 10,11          |
|         | 16,18              | 11,13          | 32,2,35      | 17,17#                        | X,X        | 11,12          |
|         | 20,21              | 7,11           | 8,12         | 17,28.2                       | 7,9        | 6,9            |
|         | 18,18              | NM             | NM           | NM                            | NM         |                |
| 2       | 14,16.3            | 19,21          | 10,11        | 16,16                         | 8,10       | 11,19          |
|         | 7,10               | 13,14          | 13,13        | 15,21                         | 13,14      | 9,11           |
|         | 15,17              | 12,12.2        | 27,31        | 15,16                         | X,Y        | 10,12          |
|         | 23,24              | 2,2,12         | 8,13         | 18,25                         | 7,8        | 8,12           |
|         | 15,16              | 10             | *            | *                             | 2          |                |
| 3       | 14,15,16,16.3,17.3 | 17,19,20,21,25 | 10,11,14     | 15,16,17                      | 8,10,11,12 | 11,14,17,18,19 |
|         | *                  | 13,14          | 12,13,14,16  | *                             | *          | 9,10,11,12,13  |
|         | 12,13,15,16,17,18  | *              | *            | 11,14,15,16,17                | X,Y        | 10,11,12       |
|         | 19,20,21,22,23,24  | *              | *            | 14,17,18,20,25,27.2,28.2,30.2 | 7,8,9,9.3  | 6,8,9,10,11,12 |
|         | 15,16,17,18        | 10,11          | *            | *                             | 2          |                |
| 4-Blood | 14,15,17.3         | 17,20,21,25    | 10,11,14     | 16,17                         | 10,11      | 14,17,18,19    |
|         | 8,12               | 13,14          | 12,13,16     | 18,19,20,24                   | 11,12      | 10,11,13       |
|         | 12,16,18           | 11,13,14,14.2  | 31.2,32.2,35 | 11,15,17                      | X,X        | 11,12          |
|         | 19,20,21,23        | 7,11,13        | 5,7,8,12     | 17,20,27.2,28.2               | 7,9,9.3    | 6,8,9,12       |
|         | 15,17,18           | NM             | NM           | NM                            | NM         |                |
| 4-Semen | 12,15              | 16,18          | 11,14        | 15,15                         | 11,13      | 11,12          |
|         | 8,10               | 11,15          | 14,14        | 19,23                         | 10,12      | 9,11           |
|         | 12,16              | 13,15          | 29,31.2      | 15,15                         | X,Y        | 10,11          |
|         | 20,23              | 13,13          | 7,12         | 28.2,29.2                     | 7,8        | 8,11           |
|         | 16,17              | 10             | *            | *                             | 2          |                |

\* A consensus was not achieved for the loci indicated.

NM - Non-Male profile, YSTR results not expected.

#For Item 1, approximately 32% of participants reported "15,17" at D22S1045 which appeared to be related to amplification kit used. Further discussion will be included in the Summary Report.

*The information presented here is that received from the sample manufacturer. It presents details of the design specification for the test samples and/or details of how they were prepared. This information does not necessarily represent the results that should or could be obtained from an examination of the sample. Final interpretation of the results should be deferred until the summary report is available.*

*Manufacturer's Information, continued*  
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| <b>YSTR Results</b>   |                 |               |               |                 |                  |               |               |               |                |
|---|-----------------|---------------|---------------|-----------------|------------------|---------------|---------------|---------------|----------------|
| <i>Results compiled from a consensus of at least 10 participants.</i> |                 |               |               |                 |                  |               |               |               |                |
| <b>Item</b>   | <b>DYF387S1</b> | <b>DYS19</b>  | <b>DYS385</b> | <b>DYS389-I</b> | <b>DYS389-II</b> | <b>DYS390</b> | <b>DYS391</b> | <b>DYS392</b> | <b>DYS393</b>  |
|   | <b>DYS437</b>   | <b>DYS438</b> | <b>DYS439</b> | <b>DYS448</b>   | <b>DYS449</b>    | <b>DYS456</b> | <b>DYS458</b> | <b>DYS460</b> | <b>DYS481</b>  |
|   | <b>DYS518</b>   | <b>DYS533</b> | <b>DYS549</b> | <b>DYS570</b>   | <b>DYS576</b>    | <b>DYS627</b> | <b>DYS635</b> | <b>DYS643</b> | <b>YGATAH4</b> |
| 2   | 35,39           | 15            | 16,17         | 13              | 30               | 21            | 10            | 11            | 13             |
|   | 14              | 11            | 11            | 21              | 30               | 15            | 16            | 10            | 28             |
|   | 38              | 12            | *             | 19              | 16               | 19            | 21            | *             | 12             |
| 3   | *               | 14,15         | 11,15,16,17   | 13              | *                | *             | 10,11         | *             | 13             |
|   | *               | 11,12         | *             | 19,21           | *                | 15,16         | 16,17         | *             | 23,28          |
|   | 38              | 12            | *             | 19,20           | 16,17            | *             | *             | *             | 11,12          |
| 4-Semen   | 38,39           | 15            | 13,14         | 12              | 28               | 22            | 10            | 11            | 12             |
|   | 16              | 11            | 11            | 22              | 30               | 16            | 15            | 9             | 21             |
|   | 37              | 10            | *             | 17              | 15               | 19            | 22            | *             | 11             |

\* A consensus was not achieved for the loci indicated.

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