



## *Manufacturer's Information*

### **Test No. 22-5872/7: DNA - Parentage**

Each sample set was a collection of known blood samples, provided on either FTA Micro Cards or swabs, from four individuals (Items 1-4); a mother, a daughter, and two potential fathers. Participants were requested to analyze these items using their existing protocols. Also included with this test was a kinship exercise that consisted of autosomal DNA profiles of two individuals for comparison. Participants were requested to determine if a half sibling relationship claim was supported following the review of these profiles.

**SAMPLE PREPARATION:** All stains were prepared from human whole blood which was drawn into EDTA tubes. Item 1 was blood from a female (mother) donor, Item 2 was blood from a female (daughter) donor, Item 3 was blood from a male donor who was the biological father of the Item 2 female, and Item 4 was blood from a male donor who was not the biological father of the Item 2 female. Each FTA card was spotted with 75uL of blood, while each swab (two swabs per item) was spotted with 100uL of blood. The different 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 August 22, 2022.

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

**KINSHIP EXERCISE:** This exercise included allelic results representing a half sibling relationship.

**VERIFICATION:** Laboratories that conducted predistribution analysis of the samples reported consistent results and associations.

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

5872 - FTA™ Micro Cards

5877 - Swabs

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*Manufacturer's Information, continued*  
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<b>Amelogenin and STR Results</b>						
<i>Results compiled from predistribution laboratories and a consensus of at least 10 participants.</i>						
<b>Item</b>	<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D6S1043</b>
	<b>D7S820</b>	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>
	<b>D18S51</b>	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>
	<b>FGA</b>	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>
	<b>vWA</b>	<b>DYS391</b>	<b>DYS570</b>	<b>DYS576</b>	<b>Y Indel</b>	
1	14,17.3	17,24	14,14	15,15	11,12	11,12
	10,11	13,15	13,16	15,21	13,13	11,12
	14,15	14,15	29,29	15,15	X,X	10,12
	22.2,26	11,14	5,12	15,19	6,8	8,8
	16,19	NM	NM	NM	NM	
2	15,17.3	17,20	10,14	15,19	11,12	12,20
	11,11	13,13	15,16	15,21	8,13	11,12
	13,15	14,14	29,30	15,17	X,X	12,12
	20,26	9,11	5,16	19,19.2	7,8	8,11
	17,19	NM	NM	NM	NM	
3	15,15	20,22	9,10	15,19	12,12	17,20
	11,11	13,15	15,15	20,21	8,8	11,14
	13,14	14,14	30,30	17,17	X,Y	12,13
	20,20	9,12	12,16	14,19.2	7,7	8,11
	17,17	10	17	18	2	
4	14,15	20,22	11,11	15,17	11,13	12,19
	8,12	15,15	13,14	17,19	12,14	11,11
	15,20	12,14	29,30.2	10,18	X,Y	7,10
	22,23	2.2,9	13,15	16,18	7,9	8,9
	15,17	10	18	17	2	

<b>YSTR Results</b>									
<i>Results compiled from predistribution laboratories and 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>
3	35,37	15	11,14	14	30	24	10	13	13
	15	12	12	20	29	15	17	10	24
	38	12	13	17	18	22	23	10	11
4	39,40	16	18,18	13	30	21	10	11	15
	14	11	12	21	31	16	16	10	24
	39	11	11	18	17	22	21	14	11

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*Manufacturer's Information, continued*  
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<b>Paternity Indices</b>					
<i>Mode Paternity Index results compiled from predistribution laboratories and a consensus of at least 10 participants.</i>					
<b>Item Database</b>					
<b>D1S1656</b>	<b>D2S1338</b>	<b>D2S441</b>	<b>D3S1358</b>	<b>D5S818</b>	<b>D6S1043</b>
<b>D7S820</b>	<b>D8S1179</b>	<b>D10S1248</b>	<b>D12S391</b>	<b>D13S317</b>	<b>D16S539</b>
<b>D18S51</b>	<b>D19S433</b>	<b>D21S11</b>	<b>D22S1045</b>	<b>Amelogenin</b>	<b>CSF1PO</b>
<b>FGA</b>	<b>Penta D</b>	<b>Penta E</b>	<b>SE33</b>	<b>TH01</b>	<b>TPOX</b>
<b>vWA</b>					
<b>3PI - Grand Mean ±3STD Range**</b>					
3.96-9.14	0-7.37	0-6.90	0-75.1	0.711-2.16	6.45-21.1
2.63-6.39	0.829-2.41	3.76-6.09	0.406-6.05	2.42-15.0	0.513-1.18
2.08-5.74	1.98-3.88	2.37-5.10	2.71-21.3	-	1.07-1.78
1.59-16.5	1.49-2.98	5.06-13.8	0-341	1.59-8.02	0-6.27
1.20-6.30					
<b>3PI - NIST STRBASE</b>					
6.68	3.19	2.38	30.1	1.34	*
4.88	1.52	5.08	3.11	8.30	0.795
4.06	2.77	3.54	13.4	-	1.39
8.11	2.26	9.77	119	5.16	1.98
3.52					
<b>4PI - Grand Mean ±3STD Range**</b>					
1.53-5.17	1.13-8.34	0-0.0036	0-0.0115	0.465-1.17	0-0.0209
0-0.00275	0-0.00466	0-0.00371	0-0.00347	0-0.00258	1.28-2.44
0-0.00401	0.900-3.44	0-0.00236	0-0.0052	-	0-0.00363
0-0.00593	1.58-4.23	0-0.0124	0-0.0442	0-4.19	0-0.00042
1.00-3.32					

\* Results were not received from a minimum of 10 participants for the loci indicated.

\*\*These ranges are provided to allow participants that utilized databases other than the one(s) listed above to review their results. Following AABB guidelines, ranges were determined by taking the grand mean of all data submitted for the associated locus and calculating 3 standard deviations above and below that value. Data values are presented in three significant figures. Data values less than zero are presented as "0."

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