



## *Manufacturer's Information*

# **Test No. 20-5801: DNA-Mixture**

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Each sample pack consisted of two known bloodstains on clean, white muslin fabric (Items 1 & 2), and two questioned stains; one on clean pink fabric (Item 3) and one on clean, off-white fabric (Item 4). Participants were requested to analyze these items using their existing protocols.

**SAMPLE PREPARATION:** The stains in Items 1, 2, and 3 were prepared using human whole blood which was either drawn into citric acid preservative bags or EDTA tubes. The stain in Item 4 was a mixture prepared from human whole blood and semen. The semen sample was first thawed and mixed 1:1 with TAE buffer, then mixed 1:1 with the blood. Item 1 (50  $\mu$ l) was created using blood from a female donor. Item 2 (50  $\mu$ l) was created using blood collected from a male donor. Item 3 (50  $\mu$ l) was a 1:1 mixture that was prepared using blood from the female donor used for Item 1 and blood from the male donor used for Item 2. Item 4 (50  $\mu$ l) was created using a 1:1 mixture of blood from the female donor found in Item 1 and semen from a male donor whose known standard was not provided. Stains from different sources were prepared at separate times and were packaged once they were thoroughly dried. Completed sample sets were stored at -20°C until shipment on January 6, 2020 following receipt of predistribution results.

**SAMPLE SET ASSEMBLY:** For each sample set, all four Items (1-4) were packed into separate envelopes and then placed together in a pre-labeled sample pack envelope. The sealed 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.

**VERIFICATION:** All predistribution laboratories confirmed the manufacturer's expected associations. Consistent allelic results were reported for all STR and YSTR loci.

**Manufacturer's Information, continued**  
**Test No. 20-5801: DNA-Mixture**

**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	18,19	11,11	14,18	9,11	*
	8,9	12,15	13,14	19,21	11,12	11,12
	14,17	12,17.2	30,30	14,15	X,X	10,11
	20,22	12,13	20,20	18.2,30.2	6,7	11,11
	16,18	NM	NM	NM	NM	
2	16.3,17	17,19	11,14	15,17	12,13	*
	8,12	11,15	14,16	18,21	11,11	9,12
	13,14	14,16	28,31.2	15,16	X,Y	11,12
	20,20	9,14	12,17	19,20	6,9.3	8,11
	15,17	11	16	18	2	
3	14,15,16.3,17	17,18,19	11,14	14,15,17,18	9,11,12,13	*
	8,9,12	11,12,15	13,14,16	18,19,21	11,12	9,11,12
	13,14,17	12,14,16,17.2	28,30,31.2	14,15,16	X,Y	10,11,12
	20,22	9,12,13,14	12,17,20	18.2,19,20,30.2	6,7,9.3	8,11
	15,16,17,18	11	16	18	2	
4-Blood	14,15	18,19	11,11	14,18	9,11	*
	8,9	12,15	13,14	19,21	11,12	11,12
	14,17	12,17.2	30,30	14,15	X,X	10,11
	20,22	12,13	20,20	18.2,30.2	6,7	11,11
	16,18	NM	NM	NM	NM	
4-Semen	15.3,16	22,24	13,14	17,18	12,13	*
	8,10	12,13	13,17	21,24	8,12	11,12
	12,15	13,16	30,32.2	16,17	X,Y	10,12
	18,22	9,12	13,17	28.2,37	5,8	8,11
	14,16	11	17	18	2	

**YSTR Results**

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

Item	DYF387S1	DYS19	DYS385	DYS389-I	DYS389-II	DYS390	DYS391	DYS392	DYS393
	DYS437	DYS438	DYS439	DYS448	DYS449	DYS456	DYS458	DYS460	DYS481
	DYS518	DYS533	DYS549	DYS570	DYS576	DYS627	DYS635	DYS643	YGATAH4
2	35,37	14	11,11	13	29	24	11	13	14
	15	12	12	19	28	15	17	11	22
	40	13	13	16	18	23	23	10	11
3	35,37	14	11,11	13	29	24	11	13	14
	15	12	12	19	28	15	17	11	22
	40	13	13	16	18	23	23	10	11
4-Semen	35,37	15	11,14	12	28	23	11	13	13
	15	12	13	18	29	16	17	11	22
	37	12	13	17	18	22	25	10	11

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

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

*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 answers 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.*