DNA profiling of Hungarian King Béla III and other skeletal remains originating from the Royal Basilica of Székesfehérvár

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ESM 7 Data for each run of the Y-chromosomal STR amplifications

Y-chromosomal STR amplification results – Budapest

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**Béla III.**																
25.11.2014	BF1	16/17	13		33	15		(13)/(14)	13	11	10			12/13	14		
25.11.2014	BF2	16	13	25		15		(11)/13	13	11	10			13			
22.01.2015	BV2		13			15			12/13								
22.01.2015	BMT1	16				15									14		
22.01.2015	BMT2	16						11	13								
20.03.2015	BF3		12/13			15		13	13								
20.03.2015	BT1	16	13	25		15	16	11,13	13	11	10	23	11	13	14	11	20
20.03.2015	BT1	16	13	25	33	15	16	11,13	13	11	10	23	11	13	14	11	20
Consensus		**16**	**13**	**25**	**33**	**15**	**16**	**11,13**	**13**	**11**	**10**	**23**	**11**	**13**	**14**	**11**	**20**

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**I/3 G**																
25.11.2014	I3GC1		13/14			19.2			12	10	11	21		11			
25.11.2014	I3GC2		(14)			19.2		12	12	10		21	(13)		14		21
09.12.2014	I3GC3	15	14	23	30	19.2	15	12,(17)	12	10	11	21	13	11	14	10	21
09.12.2014	I3GC3	15	14	23	30	19.2	15	12	12	10				11	14	10	
15.06.2015	I3GC4	15	14	23		19.2	15	12,17	12	10	11	21	13	11	14	10	(22)
Consensus		15	14	23	30	19.2	15	12,17	12	10	11	21	13	11	14	10	21

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**I/4 H**																
25.11.2014	I4HMT1	14	13			17	14					23		11	15	12	19
09.12.2014	I4HMT2		13			17			13			23			15		
09.12.2014	I4HMT2		13		29		14	(11),16	13	10		23					
22.01.2015	I4HMT3	16	13			17		11,16	13	10	11	23		11		12	
22.01.2015	I4HMT3	16	13			17			13						15		19
22.01.2015	I4HMT3	16											13		15		
15.06.2015	I4HT1	16	13	24	29	17	14	11,16	13	10	11	23	13	11	15	12	19
Consensus		**16**	**13**	**(24)**	**29**	**17**	**14**	**11,16**	**13**	**10**	**11**	**23**	**13**	**11**	**15**	**12**	**19**

Run result in brackets means that the peak height of the fragment did not reach the threshold of 20 RFU. Consensus result in brackets means that the result occurred only once.

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**II/52**																
09.12.2014	II52C1					15									14		
09.12.2014	II52C2															11	
09.12.2014	II52C2			(25)													
03.02.2015	II52C3								13		10						
03.02.2015	II52T1	16				15		11	13	11				13	14		
03.02.2015	II52T1	16					16		13	11	10			13	14	11	
20.03.2015	II52T2	16	13			15			13					13		11	
15.06.2015	II52T3	16	13	25		17		11,13			10	23		13	14/15	11	
15.06.2015	II52C4	16						13	13	11	10			12			
Consensus		**16**	**13**	**25**		**15**	**(16)**	**11,13**	**13**	**11**	**10**	**(23)**		**13**	**14**	**11**	

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**II/53**																
25.11.2014	II53C1						13					22		11	14		
09.12.2014	II53C2	15		23					13					11		10	
09.12.2014	II53C2	15				15			13					11			
09.12.2014	II53C3	15				15				10				11		10	20
15.01.10 22	II53C4	15	13	23		15		(19)	13		12			8/11		10	
22.01.2015	II53C4	15	13	(23)	30	15		15	13	10		22	11	11	14		
03.02.2015	II53V1	15/17	13	23		15	13	14/15/19	13	10	12	22		11	14	10	20
15.06.2015	II53C5	15	13	23		15	13		13	10		22	11	11	14	10	
15.06.2015	II53C5	14/15	13			15			13	10	12			11	14		
Consensus		**15**	**13**	**23**	**(30)**	**15**	**13**	**15,19**	**13**	**10**	**12**	**22**	**11**	**11**	**14**	**10**	**20**

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**II/54**																
09.12.2014	II54C1	17	13	25	30	15		11,14	13	10		23	11	12	14	11	20
09.12.2014	II54C1	17	13	25	30	15	16	11,14	13	10	10	23	11	12	14	11	20
20.03.2015	II54C2	17	13	25	30	15	16	11,14	13	10	10	23	11	12	14	11	20
Consensus		**17**	**13**	**25**	**30**	**15**	**16**	**11,14**	**13**	**10**	**10**	**23**	**11**	**12**	**14**	**11**	**20**

	Samples	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**II/55**																
09.12.2014	II55C1	15	13	25	29	18	14	11,14	13	10	13	23	14	11	16	12	19
09.12.2014	II55C1	15	13	25	29	18	14	11,14	13	10	13	23		11	16	12	19
03.02.2015	II55C2	15	13	25	29	18	14	11,14	13	10	13	23	14	11	16	12	19
Consensus		**15**	**13**	**25**	**29**	**18**	**14**	**11,14**	**13**	**10**	**13**	**23**	**14**	**11**	**16**	**12**	**19**

Run result in brackets means that the peak height of the fragment did not reach the threshold of 20 RFU. Consensus result in brackets means that the result occurred only once.

The following mock extractions were used for the Y-chromosomal STR amplification reactions

	Sample	DYS456	DYS389 I	DYS390	DYS389 II	DYS458	DYS19	DYS385	DYS393	DYS391	DYS439	DYS635	DYS392	GATA H4	DYS437	DYS438	DYS448
Run	**Mock**																
25.11.2014	Mock 1																
09.12.2014	Mock 2																
22.01.2015	Mock 3																
03.02.2015	Mock 4																
20.03.2015	Mock 5																
15.06.2015	Mock 6																

Mock extractions and No Template Control (NTC) reactions for each batch revealed no successful amplification.

Y-chromosomal STR amplification results – Göttingen

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
Bela III. (HU 3B Mt)	Ex 6	1	-	11-13	13	-	25	11	-	-	14	11	10	10a	2015.07.02
	Ex 6	3	16	11-13	13	-	-	11	-	12-13	14	11	10	10b	2015.07.02
	Ex 6	3	16	11-13	13	33	25	11	11	13	14	11	10	11a	2015.07.08
	Ex 6	4	-	11-13	13	-	-	11	11	13	14	11	10	11b	2015.07.08
Haplotype			**16**	**11-13**	**13**	**(33)**	**25**	**11**	**11**	**13**	**14**	**11**	**10**		

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
Anna of Antioch (HU AA Co)	Ex 4	3	-	- - -	-	-	-	-	-	-	-	-	-	10	2015.07.02
Haplotype															

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
I/3 G 5. skeleton (HU 3G Co)	Ex 4	1	-	12- -	-	-	23	10	-	-	14	-	11	10a	2015.07.02
	Ex 4	3	((15))	((12))- -	14	30	-	10	-	12	14	-	-	10b	2015.07.02
	Ex 4	3	15	12-17	14	30	23	10	13	12	14	((10))	11	11a	2015.07.08
	Ex 4	4	15	12-17	14	30	23	10	13	12	14	10	11	11b	2015.07.08
Haplotype			**15**	**12-17**	**14**	**30**	**23**	**10**	**13**	**12**	**14**	**10**	**11**		

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
I/4 H 6. skeleton (HU 4H Mt)	Ex 4	1	14	11-16	13	29	24	10	13	13	15	12	11	10a	2015.07.02
	Ex 4	3	14	11-16	13	29	24	10	13	13	15	12	11	10b	2015.07.02
	Ex 4	3	14	11-16	13	29	24	10	13	13	15	12	11	11a	2015.07.08
	Ex 4	4	14	11-16	13	29	24	10	13	13	15	12	11	11b	2015.07.08
Haplotype			**14**	**11-16**	**13**	**29**	**24**	**10**	**13**	**13**	**15**	**12**	**11**		

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
II/52 (Unmarked) 3. skeleton (HU 52 Ta)	Ex 4	1	-	-	-	-	25	11	-	-	-	11	-	10a	2015.07.02
	Ex 4	3	16	(11)-13	13	-	25	11	-	13	14	-	-	10b	2015.07.02
	Ex 4	3	16	11-13	13	-	-	11	11	13	14	11	10	11a	2015.07.08
	Ex 4	4	16	11-13	13-(14)	33	25	11	11	13	14	11	10	11b	2015.07.08
Haplotype			**16**	**11-13**	**13**	**(33)**	**25**	**11**	**11**	**13**	**14**	**11**	**10**		

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
II/53 7. skeleton (HU 53 St)	Ex 4	1	-	19- -	-	-	-	-	-	13	14	10	-	10a	2015.07.02
	Ex 4	3	13	- - -	12-13	29-30	25	10-11	11	13	14	-	10	10b	2015.07.02
	Ex 4	3	15	11-(14)-(19)	13	30	23	10-(11)	11	13	14-(15)	10-(11)	12	11a	2015.07.08
	Ex 4	4	13	14-15-(19)	13	30	23-25	10-11	11	13	14	10-(11)	12-13	11b	2015.07.08
Haplotype															

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
II/54 9. skeleton (HU 54 Co)	Ex 4	1	-	- - -	13	30	-	10	11	13	14	11	10	10a	2015.07.02
	Ex 4	3	16	11-14	13	30	25	10	-	-	14	-	10	10b	2015.07.02
	Ex 4	3	16	11-14	13	30	25	10	11	13	14	11	10	11a	2015.07.08
	Ex 4	4	16	11-14	13	30	25	10	11	13	14	11	10	11b	2015.07.08
			16	**11-14**	**13**	**30**	**25**	**10**	**11**	**13**	**14**	**11**	**10**		

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
II/55 10. skeleton (HU 55 Co)	Ex 6	1	14	11- -	13	29	25	10	(14)	13	-	12	-	10a	2015.07.02
	Ex 6	3	14	11-14	13	29	25	10	((14))	13	16	((12))	13	10b	2015.07.02
	Ex 6	3	14	11-14	13	29	25	10	14	13	16	12	13	11a	2015.07.08
	Ex 6	4	14	11-14	13	29	25	10	14	13	16	12	13	11b	2015.07.08
Haplotype			**14**	**11-14**	**13**	**29**	**25**	**10**	**14**	**13**	**16**	**12**	**13**		

Individual (Sample)	Extract no.	µl Ex in PCR	DYS19	DYS385	DYS389 I	DYS389 II	DYS390	DYS391	DYS392	DYS393	DYS437	DYS438	DYS439	PCR #	Run
II/109 8. skeleton (HU 109 Co)	Ex 4	3	-	- - -	-	-	-	-	-	-	-	-	-	10	2015.07.02
Haplotype															

Negative controls for the PCRs revealed no amplification.