

a- Royal Y-chromosome Lineage Mummies

Sample No.	DYS 456	DYS 389I	DYS 390	DYS 389II	DYS 458	DYS 19	DYS 385a,b	DYS 393	DYS 391	DYS 439	DYS 635	DYS 392	YGATA H4	DYS 437	DYS 438	DYS 448	Predicted haplotype
Yuya	15	14	-	29	-	-	-	-	-	-	20	-	11	-	-	24	G2a*
Amenhotep III	15	13	24	30	16	-	14	13 ^a	11	-	-	-	11 ^a	14	-	-	R1b**
KV55 (Akhenaten)	15	13	24	30	16	14	11,14	13 ^a	11	10	23	13	11 ^a	14	12	19	R1b*
Tutankhamun	15	13	24	-	16	-	11,-	13 ^a	11	-	23	-	11 ^a	14	-	-	R1b**

b- Reference Mummies

Sample No.	DYS 456	DYS 389I	DYS 390	DYS 389II	DYS 458	DYS 19	DYS 385a,b	DYS 393	DYS 391	DYS 439	DYS 635	DYS 392	YGATA H4	DYS 437	DYS 438	DYS 448	Predicted haplotype ¹
TT320-CCG61065	15	12	19	-	18	13	-	9 ^a	8	-	20	-	9 ^a	15	-	-	L*
Ramesses III ^b	13	13	21	33	-	19	20	8	8	-	-	17	13	14	10	20	E1b1a*
Unknown ManE ^b	13	13	21	33	-	19	20	8	8	-	-	17	13	14	10	20	E1b1a*

c- DNA Controls

Sample No.	DYS 456	DYS 389I	DYS 390	DYS 389II	DYS 458	DYS 19	DYS 385a,b	DYS 393	DYS 391	DYS 439	DYS 635	DYS 392	YGATA H4	DYS 437	DYS 438	DYS 448	Predicted haplotype ¹
DNA 007	15	13	24	29	17	15	11,14	13	11	12	24	13	13	15	12	19	R1b***
Staff 1	16	13	24	29	15	14	11,11	12	11	12	23	13	12	15	12	19	R1b***
Staff 2	14	11	24	27	19	13	13,17	12	10	12	25	11	11	14	11	19	Q***
Staff 3	16	13	24	29	15	14	11,11	12	11	12	23	13	12	15	12	19	R1b***

Note: All female mummies were also tested with Y-chromosomal markers and did not yield any positive results.

^a Data already published in Hawass *et al.* (2010)

*The haplogroup (hg) prediction was carried out through the website: www.hprg.com/hapest5/, by matching the concluded ancient Y-STR profiles versus those of the Mediterranean populations (meditp) as well as of the equal priors (eqp) selection (Athey 2006, 34-39). The predicted hg was suggested based on the probability that is more than 85%. The actual probabilities for the detected 4 ancient haplotypes were for the R1b hg (meditp: 99.9%; eqp: 99.6%), the G2a hg (meditp: 94.9%; eqp: 89.2%), the L hg (meditp: 92.9%; eqp: 98.4%) and E1b1a hg (meditp: 86.7%; eqp: 98.3%).

** Since the weights of the various alleles and loci in haplogroup prediction are apparently unequal, the Amenhotep III-KV55-Tutankhamun male lineage haplotype was predicted based on the complete KV55 data rather than the partial data of Tutankhamun and Amenhotep III which gave different probabilities. Amenhotep III partial profile gave (meditp: R1a: 55.5%, R1b: 31.5% and E1b1b: 12.5%; eqp: R1a: 84.1%, R1b: 9.3% and E1b1b: 5.4%), while that of Tutankhamun gave (meditp: R1b: 71.7%, R1a: 28% and E1b1b: 0%; eqp: R1a: 65.9%, R1b: 32.9% and E1b1b: 0%).

*** The contemporary staff samples were matched only to the Mediterranean populations selection and the 007 profile to the Northwest European selection. All probabilities exceeded 95%.

Table 3. Y-chromosome data of male mummies and DNA controls