

Supplementary table 1. Number of archaeal genes matching domains present in RNA polymerase subunits

Pfam ID	<i>A_p</i>	<i>P_a</i>	<i>S_s</i>	<i>S_t</i>	<i>A_f</i>	<i>H_a</i>	<i>M_a</i>	<i>M_j</i>	<i>M_k</i>	<i>M_m</i>	<i>M_t</i>	<i>P_a</i>	<i>P_h</i>	<i>T_a</i>	<i>T_v</i>	Pfam HMM description
PF04997	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb1, domain 1
PF00623	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	RNA polymerase Rpb1, domain 2
PF04983	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	RNA polymerase Rpb1, domain 3
PF05000	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	RNA polymerase Rpb1, domain 4
PF04998	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb1, domain 5
PF04563	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase beta subunit
PF04561	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	RNA polymerase Rpb2, domain 2
PF04565	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb2, domain 3
PF04566	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb2, domain 4
PF04567	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb2, domain 5
PF00562	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb2, domain 6
PF04560	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb2, domain 7
PF01000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb3/RpoA insert domain
PF03874	1	-	1	-	1	1	1	1	-	1	1	1	1	1	1	RNA polymerase Rpb4
PF01191	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb5, C-terminal domain
PF01192	1	1	1	1	1	1	1	1	1	1	1	1	-	1	1	RNA polymerase Rpb6
PF03876	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerase Rpb7, N-terminal domain
PF04035	1	-	1	1	1	1	-	1	-	-	1	1	-	1	1	Archaeal DNA-directed RNA polymerase subunit E''
PF01193	1	-	1	1	1	1	1	1	1	1	1	1	-	1	-	RNA polymerases L / 13 to 16 kDa subunit
PF02150	1	2	3	2	1	2	1	1	-	1	1	1	1	1	1	RNA polymerases M/15 Kd subunit
PF01194	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	RNA polymerases N / 8 kDa subunit

Columns: **Pfam ID**, accession number of the Pfam entry; columns 2-16, number of genes matching the TA-HMM. The top row of these columns shows the two letter species code of the genome (please see figure 2); **Pfam HMM descriptions**, protein domain annotation provided by Pfam.