

**Table S2. Motifs loss rates computed on F1 motif subset.**

<b>Branch</b>	<b>N<sup>a</sup></b>		<b>Rate<sup>b</sup></b>		<b>HM/CM</b>	<b>p<sup>c</sup></b>
	<b>HM</b>	<b>CM</b>	<b>HM</b>	<b>CM</b>		
Chimpanzee	5474	5314	6.4%	5.8%	1.1	0.209
Hominini	5474	5314	5.3%	4.3%	1.2	0.024
Denisovan	5185	5084	1.1%	0.7%	1.6	0.036
Human	5185	5084	1.8%	0.5%	3.6	5.7 10 <sup>-10</sup>

<sup>a</sup> Intact motif count at ancestral node of the branch (cf. Figure 1)

<sup>b</sup> Motif loss rate along the branch

<sup>c</sup> P-value of proportion test comparing HM vs. CM loss rates along the branch