

Supplementary Table 2: Estimated costs (in ATP) for the five histone proteins in select eukaryotic species. The cost for each component accounts for both the total cost of the amino acids comprising the protein and for the cost of translation. The total cost per nucleosome (final column) weights each of the component histones by a factor of two (because a nucleosome consists of an octamer containing two of each underlying component), but allows for just one H1 linker per octamer.

Species	H1	H2a	H2b	H3	H4	Total
<i>Arabidopsis thaliana</i>	6,157	2,997	3,511	3,230	2,512	30,656
<i>Caenorhabditis elegans</i>	4,665	2,810	2,946	3,202	2,513	27,607
<i>Chlamydomonas reinhardtii</i>	5,911	2,936	3,612	3,214	2,517	30,469
<i>Dictyostelium discoideum</i>	3,477	3,692	2,616	4,113	3,341	31,001
<i>Drosophila melanogaster</i>	5,729	2,828	2,997	3,225	2,514	28,857
<i>Gallus gallus</i>	4,761	2,956	3,021	3,214	2,507	28,157
<i>Homo sapiens</i>	4,749	2,981	3,014	3,226	2,507	28,204
<i>Saccharomyces cerevisiae</i>	6,066	2,924	3,024	3,209	2,497	29,374
<i>Tetrahymena thermophila</i>	3,802	3,380	2,957	3,274	2,488	28,000
<i>Xenopus laevis</i>	4,499	2,947	3,035	3,225	2,507	27,927