



**Supplementary Figure 2.** Reading frame information in HEK293 samples prepared with different buffer conditions. (a-c) Stacked histograms showing the fraction of footprint reads at each length, separated based on the reading frame position of the 5' end of the read, relative to the first codon nucleotide. (d-f) Histogram of footprint reads at each length, and of the information content of footprints at that length. The information content is defined as the difference between the entropy of the position distribution with no reading frame information, in which any of three codon positions are equally likely, and the entropy of the position distribution with reading frame information.