



**Supplementary Figure 6. Binding profiles of ten 3' end processing factors around cleavage sites in uaRNA regions and mRNA ends.** A cleavage site is defined as a uaRNA cleavage site if it is outside any protein coding gene but locates within 5 kb upstream antisense of a protein-coding gene TSS. mRNA cleavage sites are defined as cleavage sites within 100 bases of annotated protein-coding gene ends. For each 3' end processing factor, CLIP read density within 200 bases of all cleavage sites are summed up in every 5 bp bin and subsequently normalized such that the max value is 1.