

Figure SI: Scatter plots of gene expressions across the CAGE libraries (different batches) with the same barcodes. Individual dots represent quantified levels of transcript abundances.

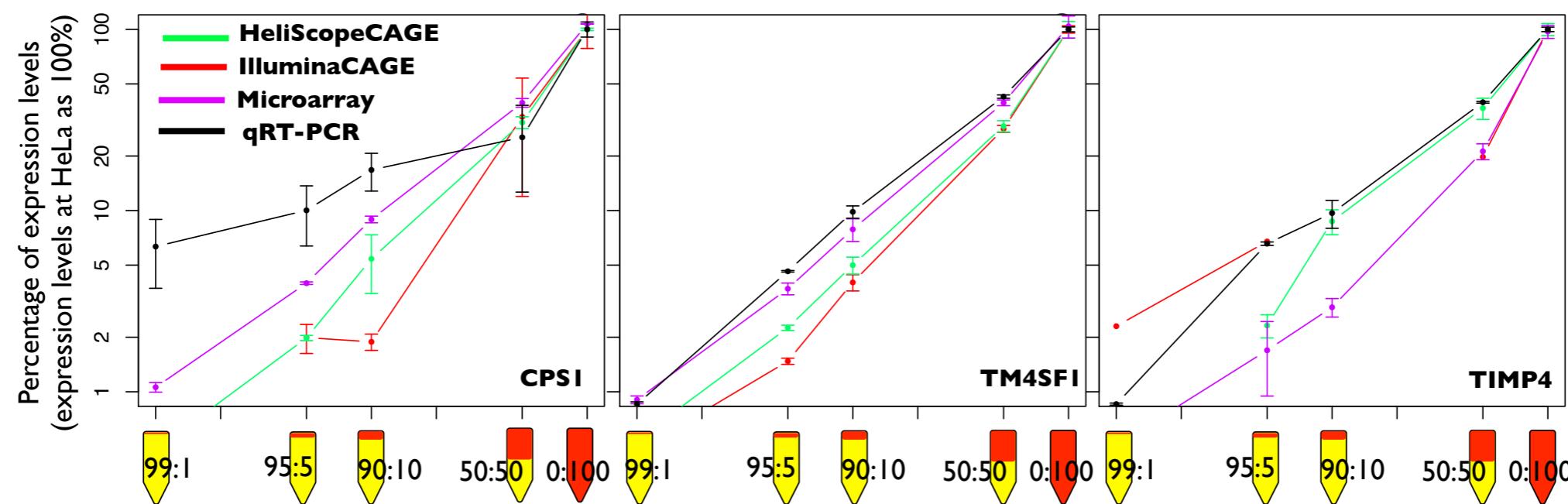


Figure S2: Quantification of gene abundance with different technologies. Different color represent different protocols, and x-axis corresponds to mixing ratio of HeLa cells.

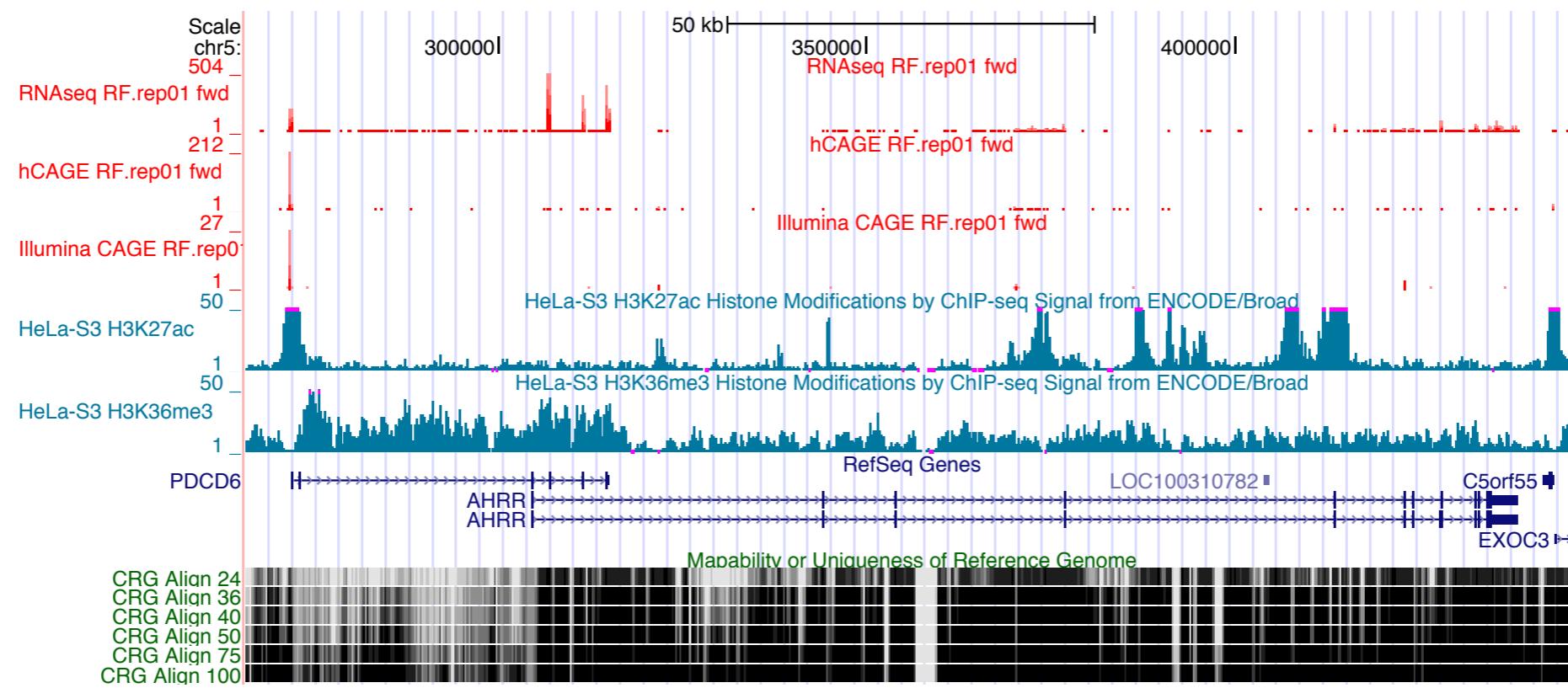


Figure S3: CAGE, RNA-seq, and chromatin marks at AHRR loci

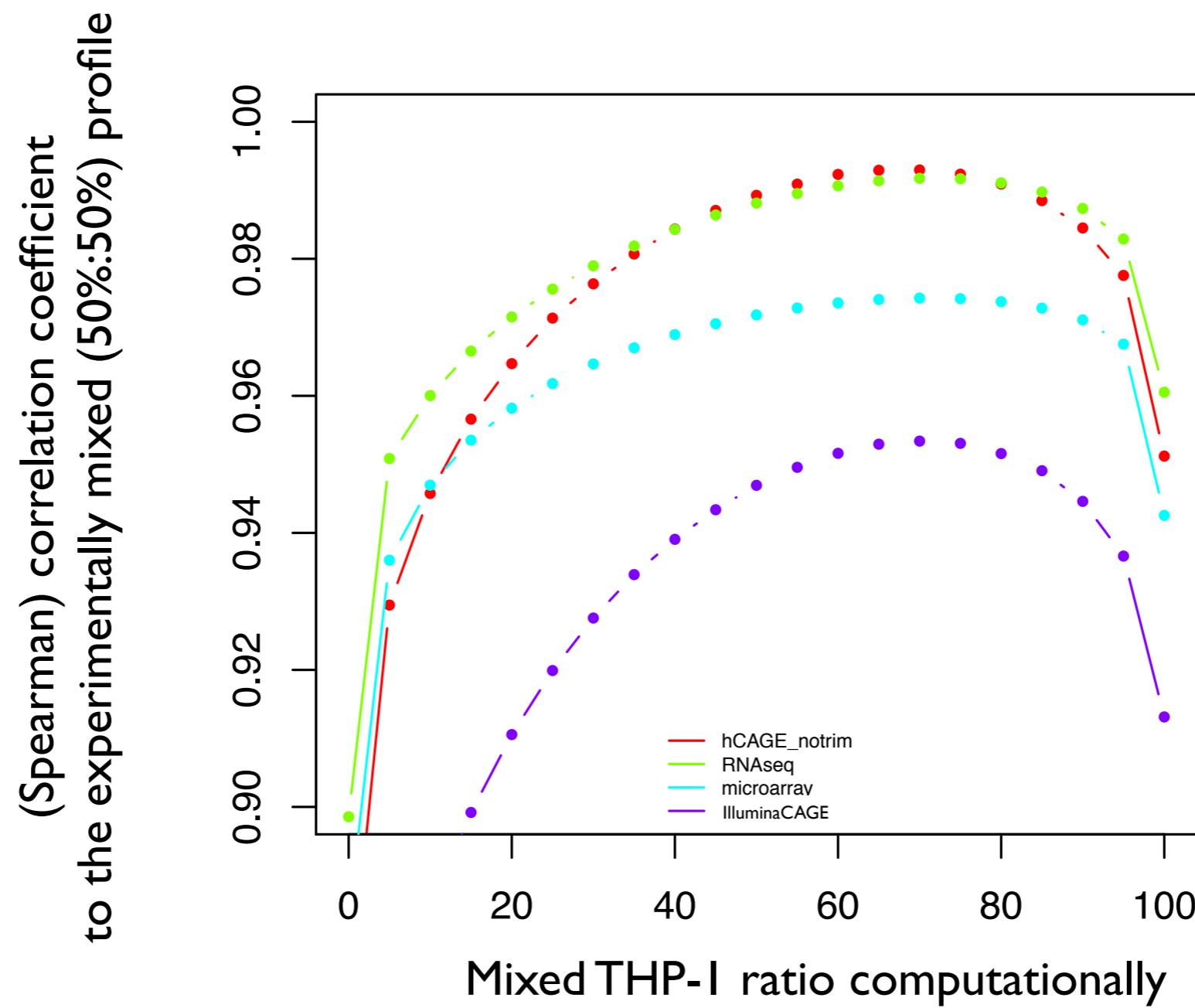
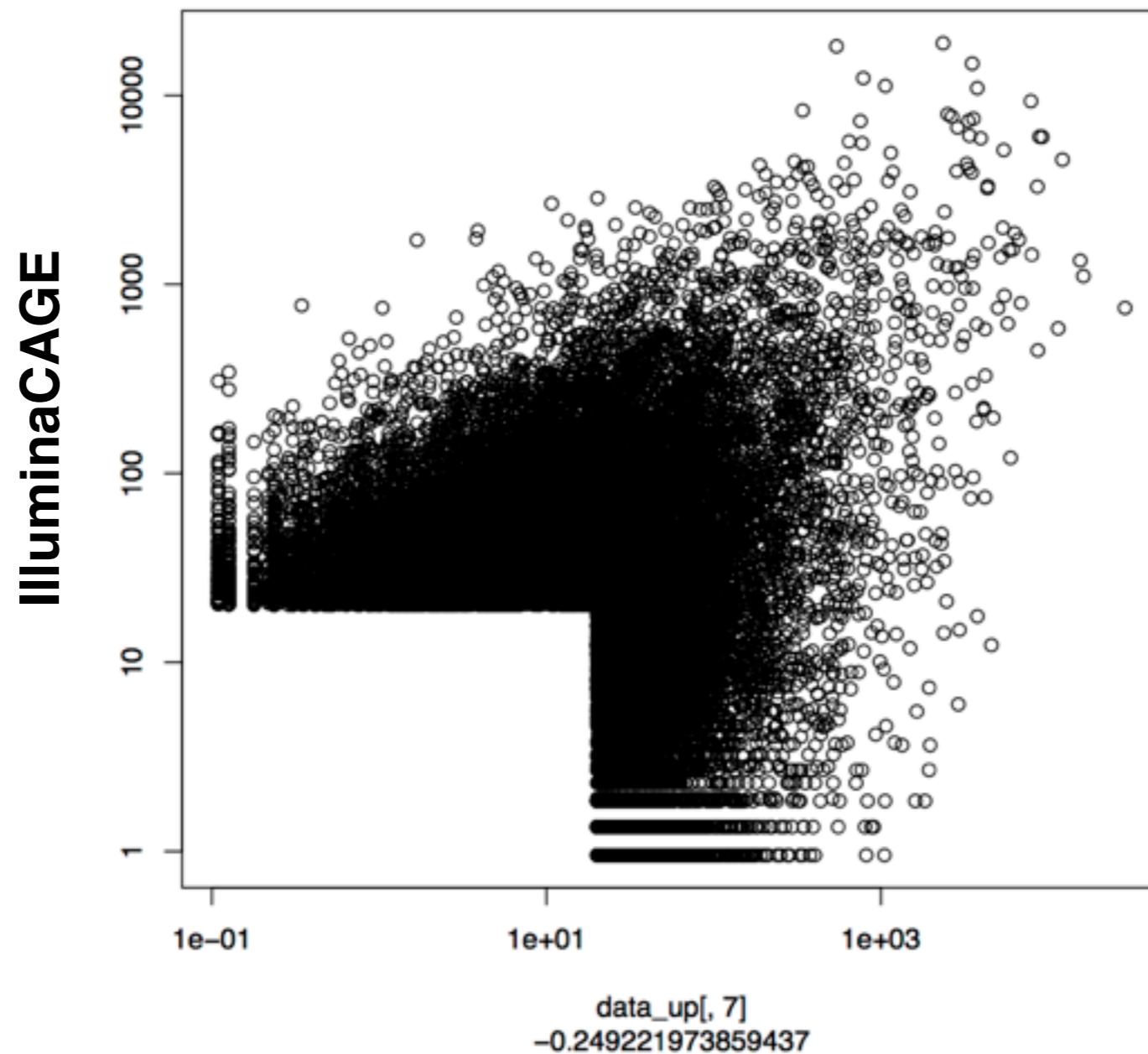


Figure S4: Comparison of computationally and experimentally mixed profiles



HeliScopeCAGE

Figure S5: Scatter plot of the TSS activities in THP-I cells, Only TSSs with >50tpm at either technologies are shown.

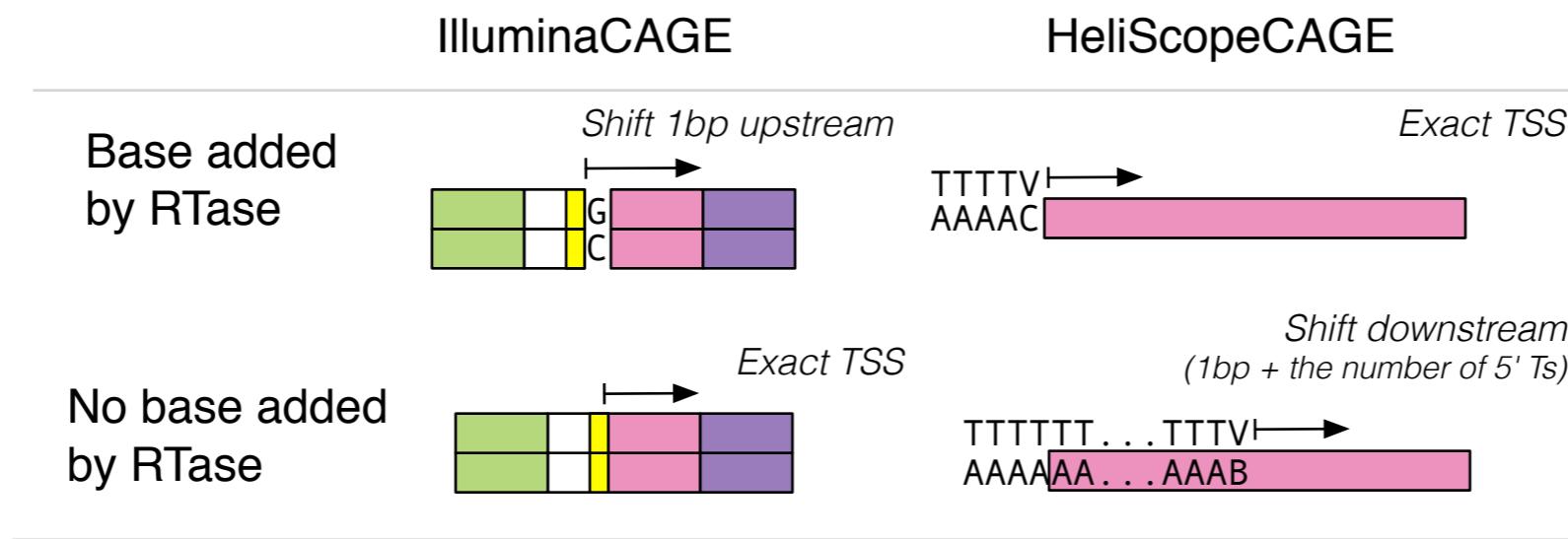


Figure S6: Schematic view of how CAGE platforms identify actual TSSs accurately or in a shift manner.

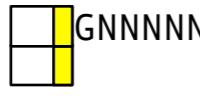
	Linker structure	G starting TSS	W (A/T) starting TSS	C starting TSS		
80%	 Random 6 bases		~		~	
20%	 G + random 5 bases (4 fold more than random 6)		>>		>	

Figure S7: 5'Linker structure in IlluminaCAGE and their ligation efficiencies that potentially affect to skewed TSS profiles

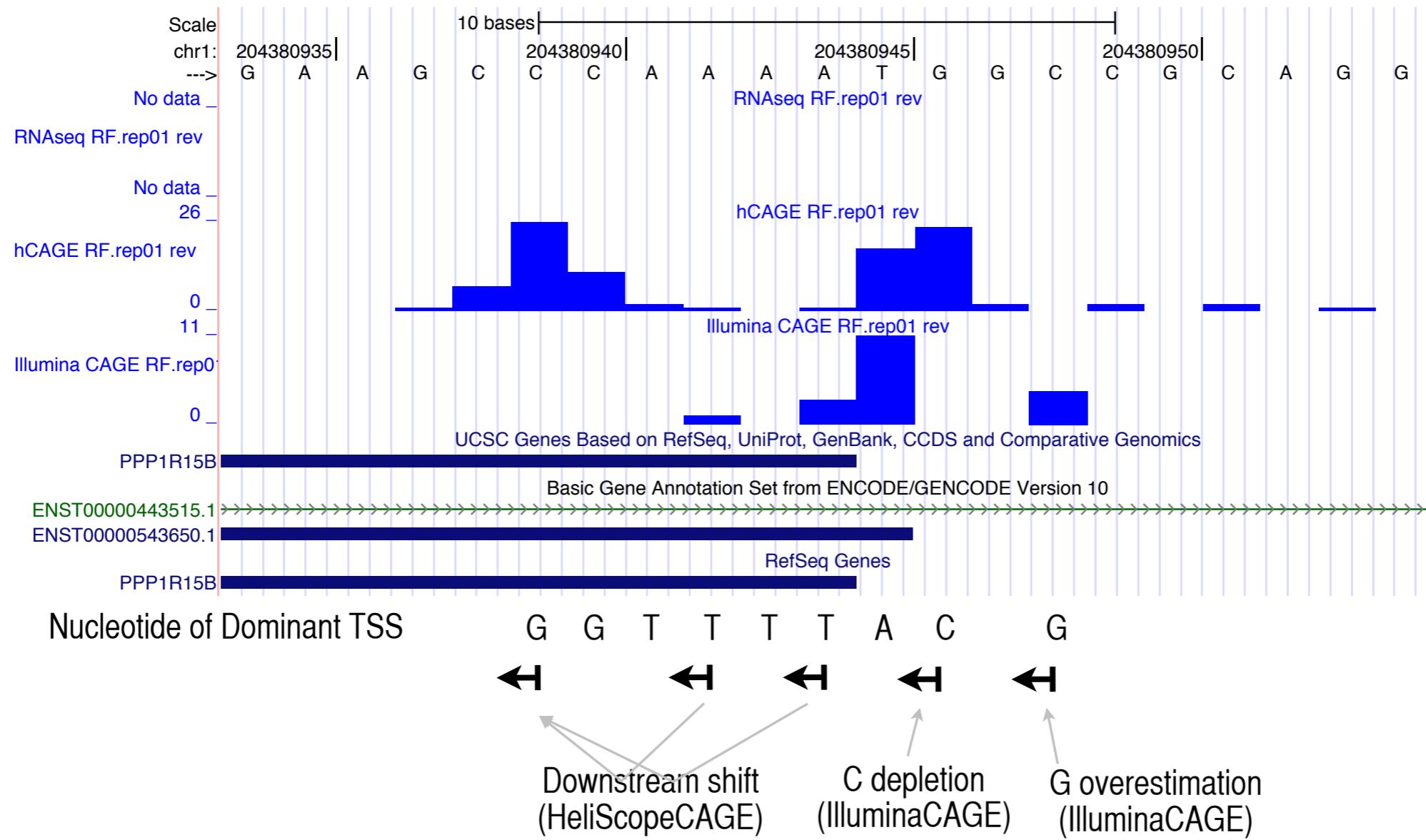


Figure S8: TSS activities at a single base pair resolution between IlluminaCAGE and HeliScopeCAGE at PPP1R15B locus

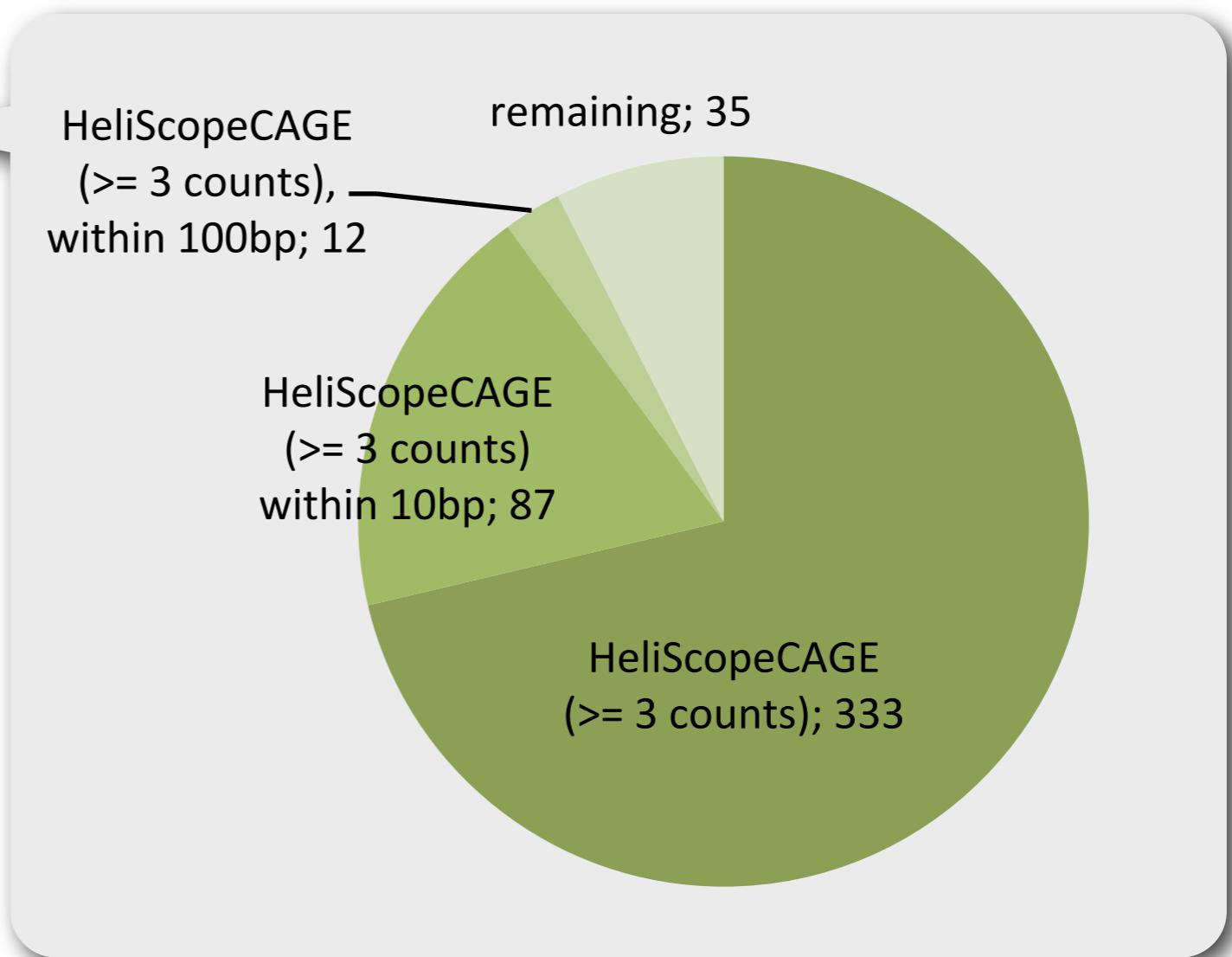
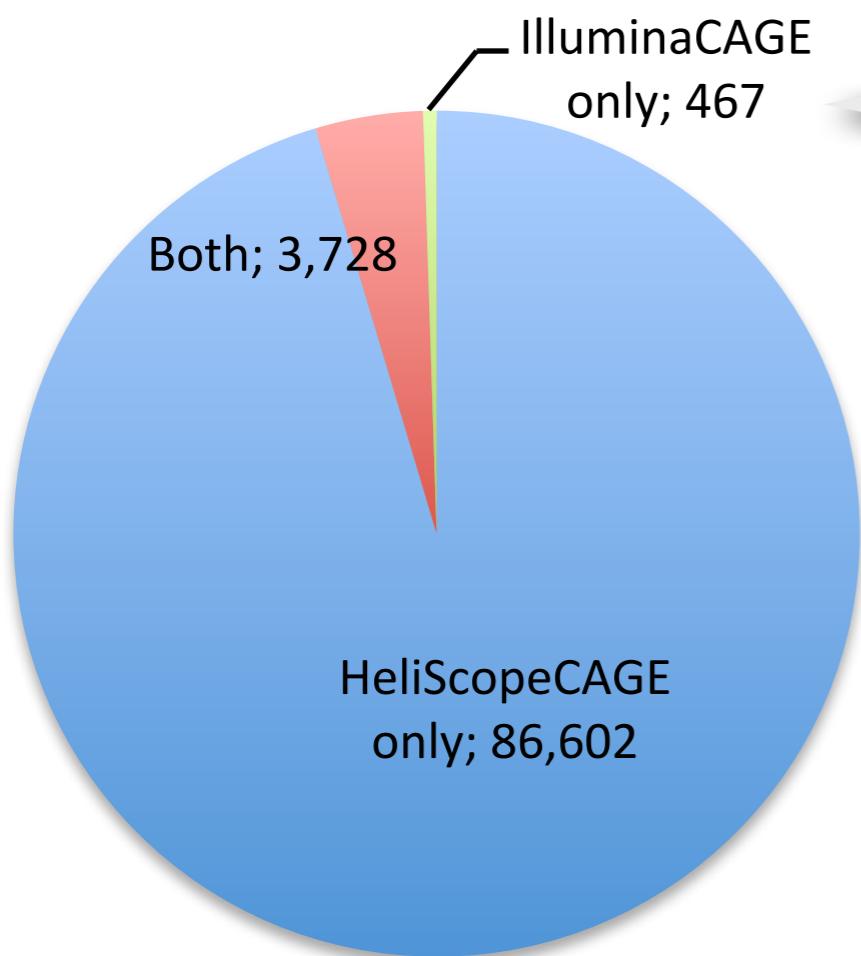


Figure S9: overlap of identified TSSs with >10 counts are shown as pie chart.

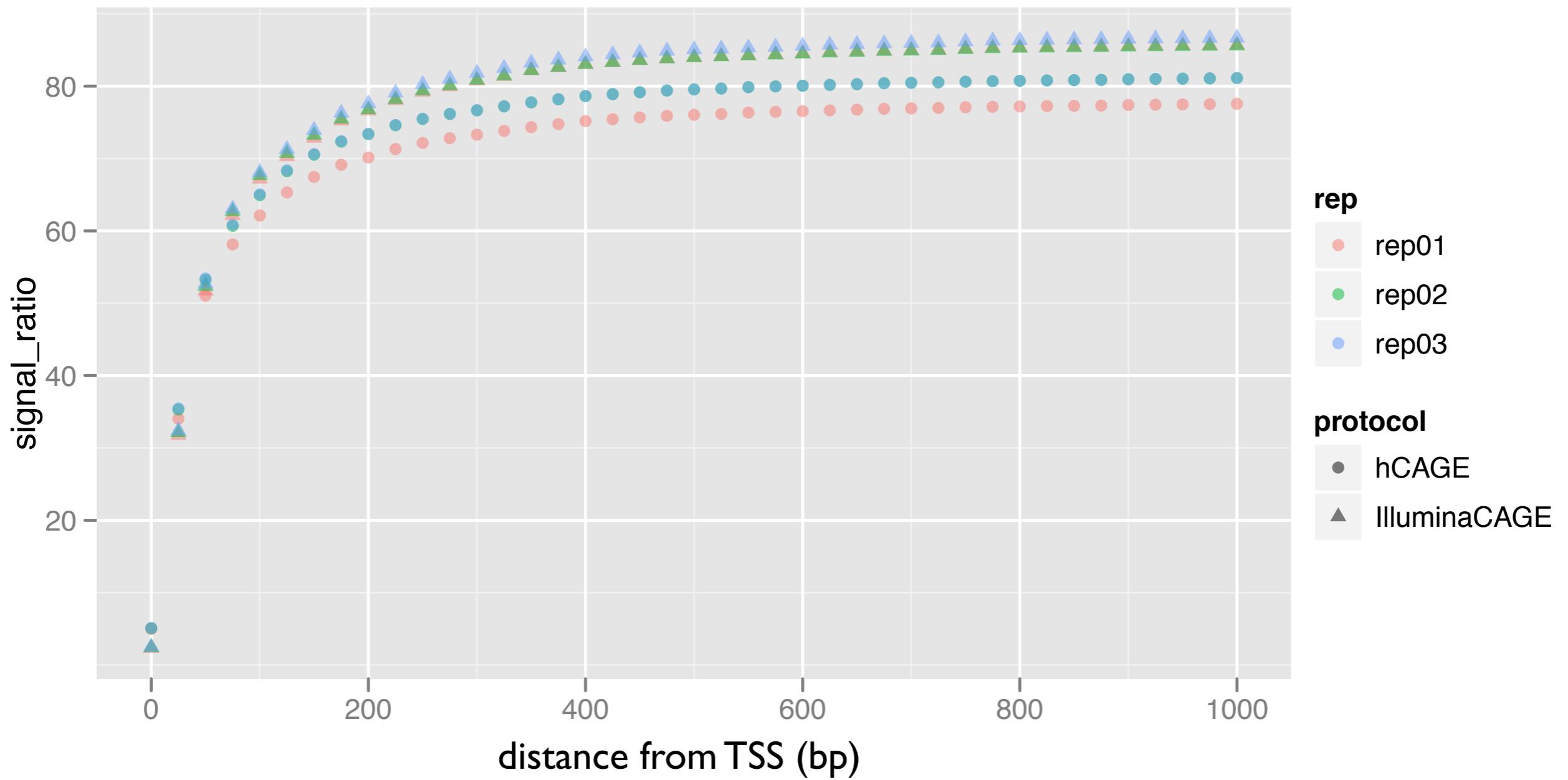


Figure S10: the ratio of CAGE reads starting from TSS proximal regions

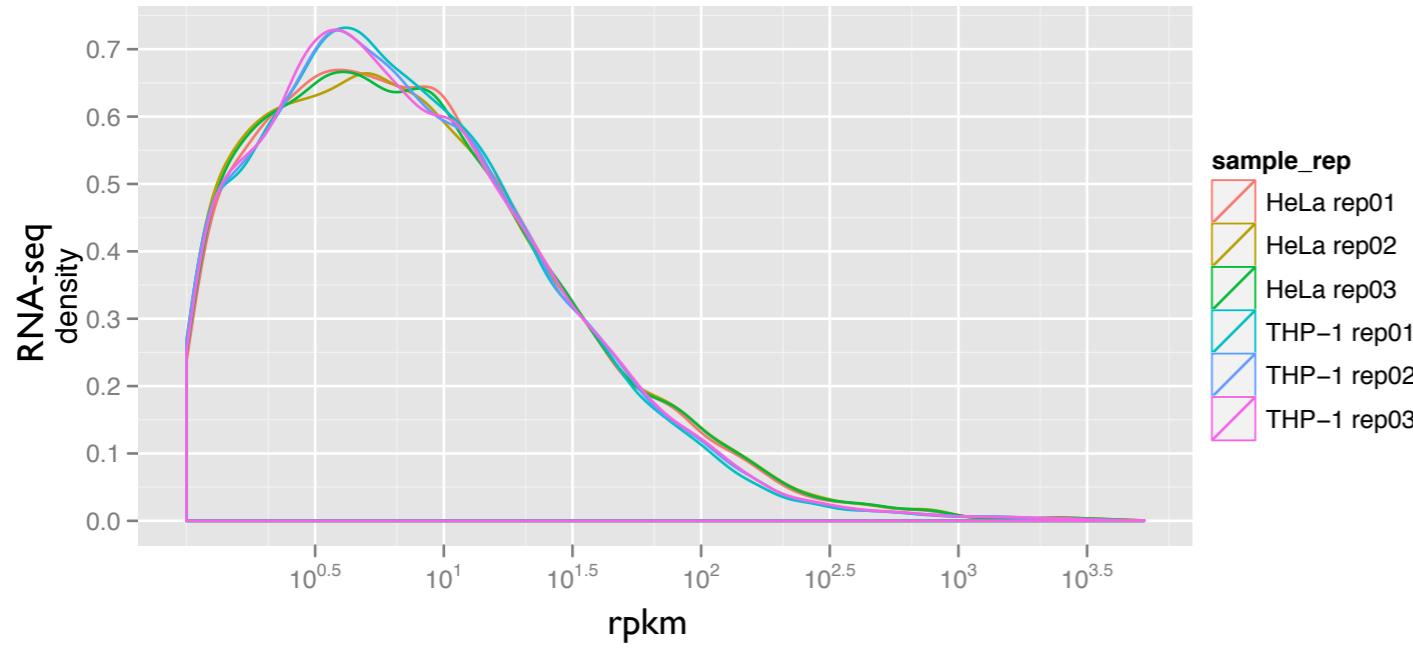
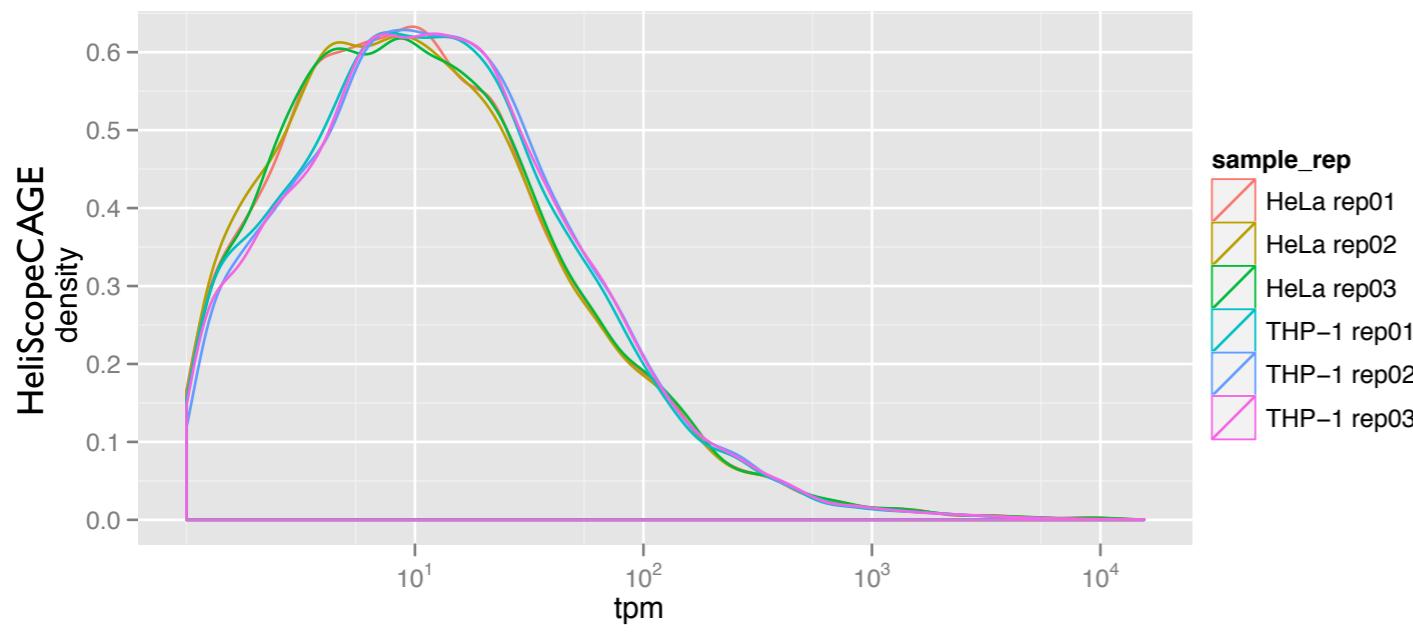
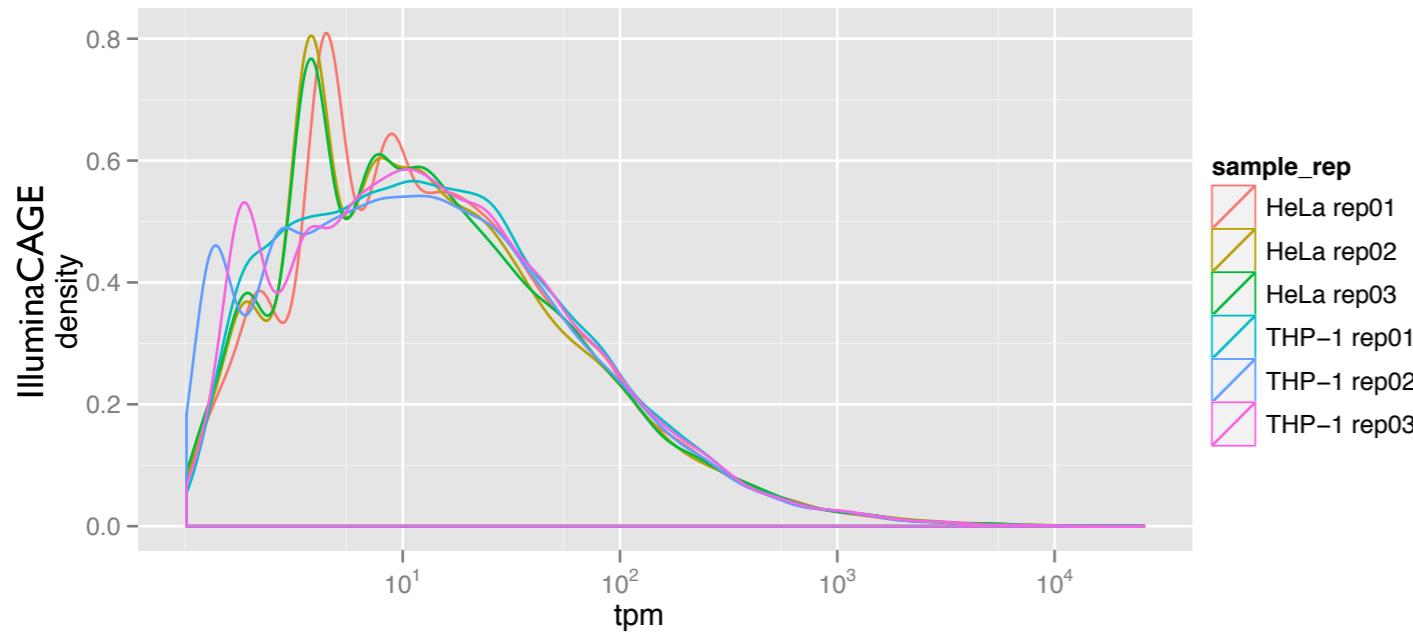
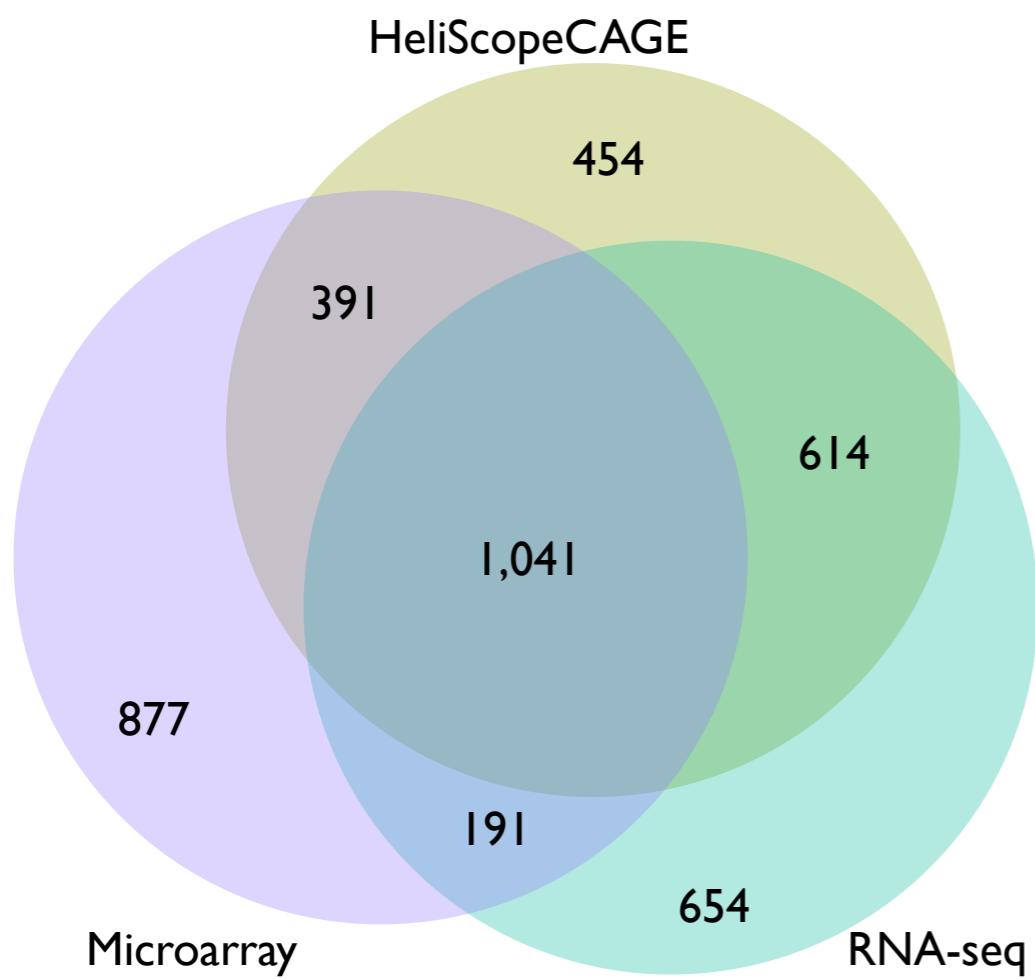
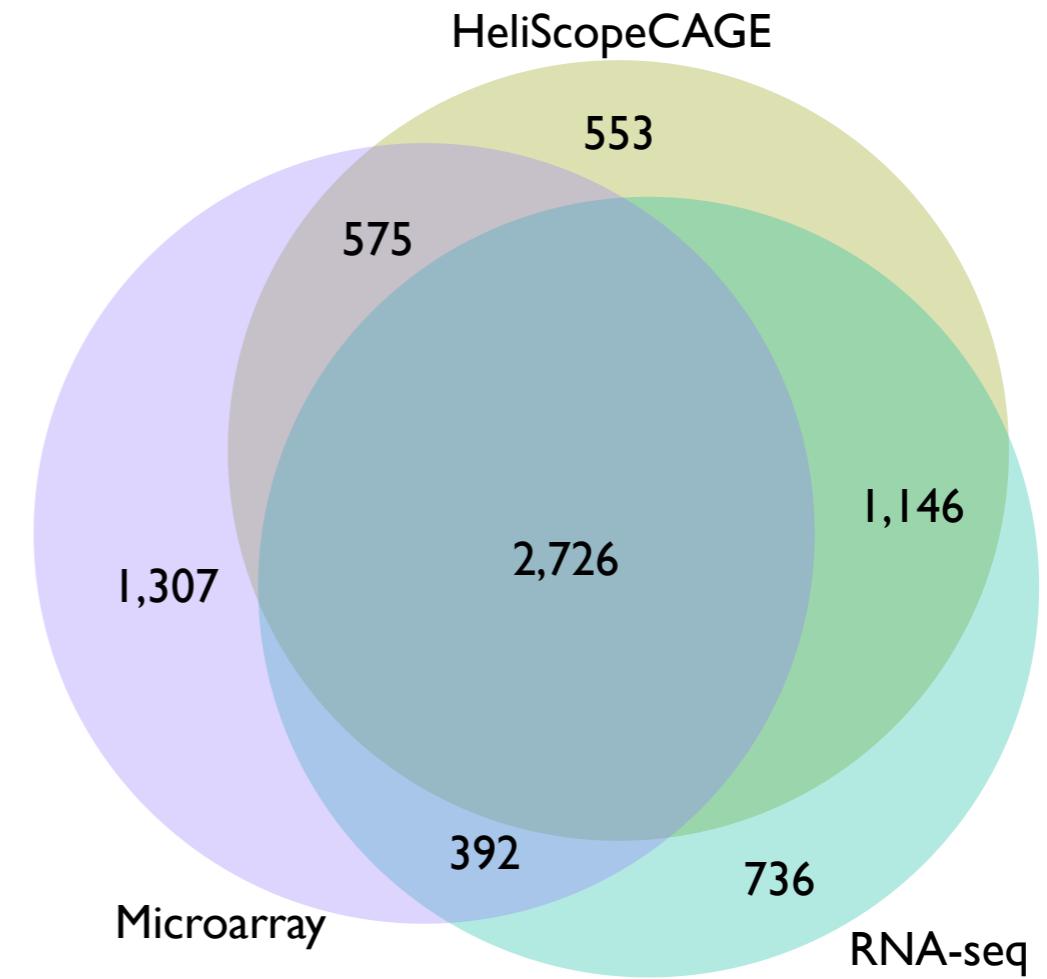


Figure SII: complexity of detected RNA species in THP-1 and HeLa RNA



Top 2500 genes in each platform
(4,222 genes in total)



Top 5,000 genes in each platform
(7,435 genes in total)

Figure S12: Overlaps of genes detected in HeLa cells by each platform.