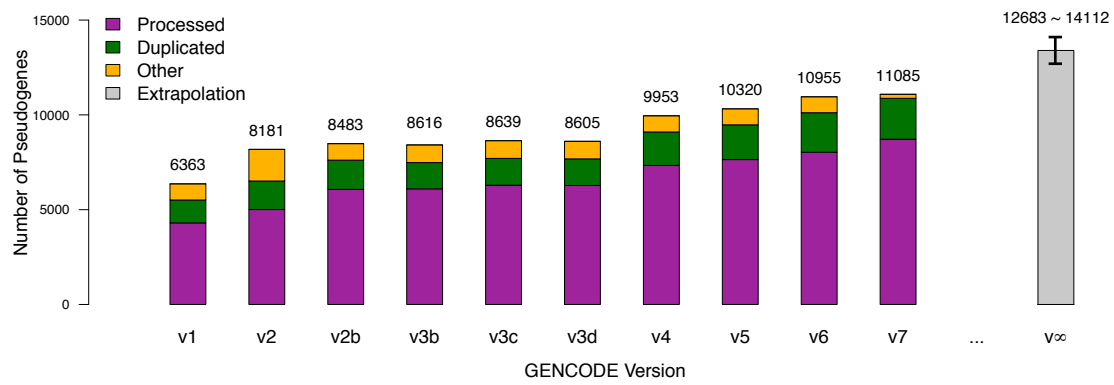
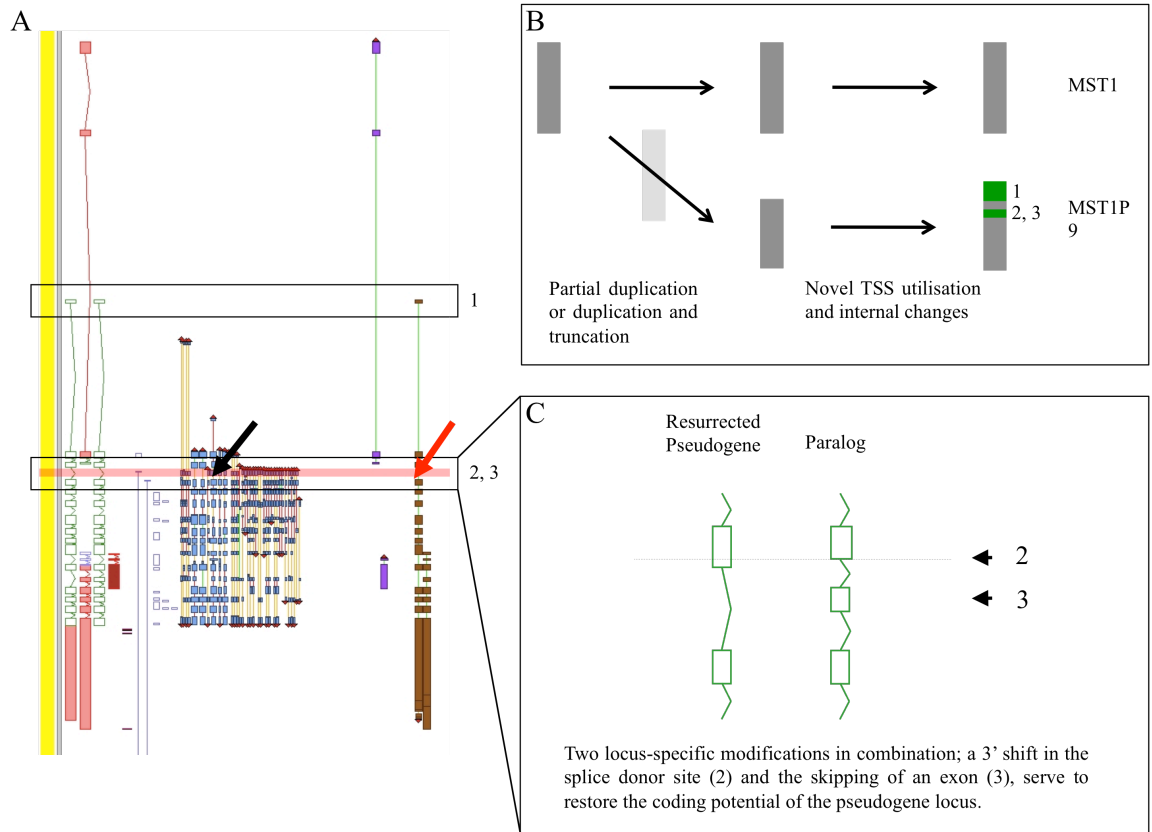


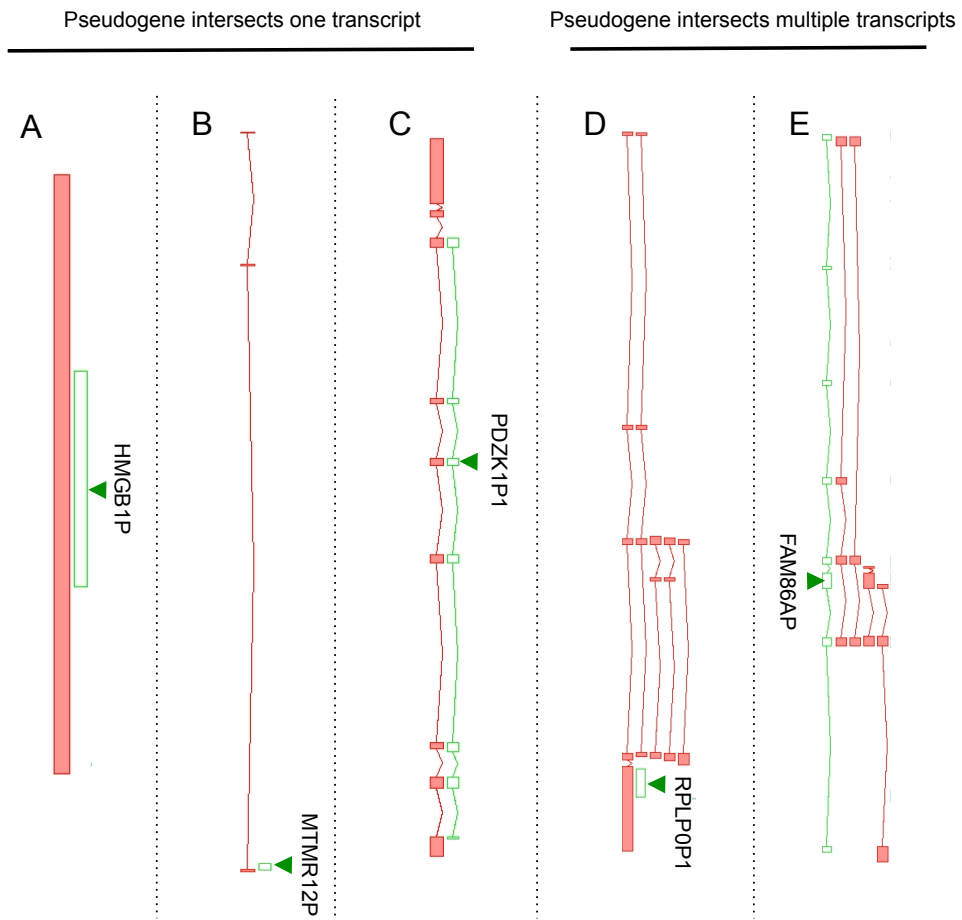
**Figure 1:** Flowchart for pseudogene annotation.



**Figure 2:** Growth of pseudogene annotation. Gray bar represents the extrapolation of number of pseudogene in the whole genome.

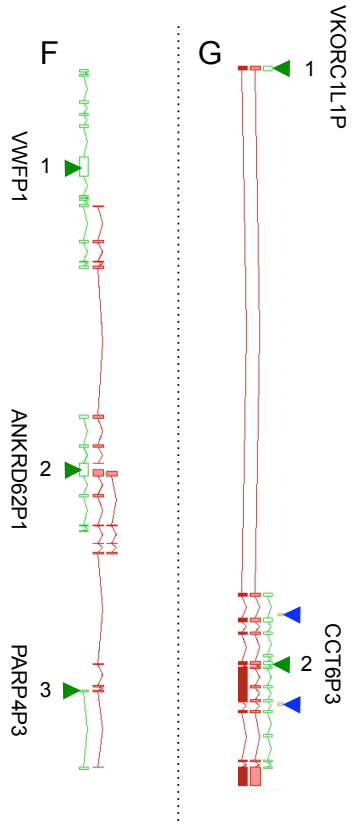


**Figure 3:** Complexity of pseudogenes.

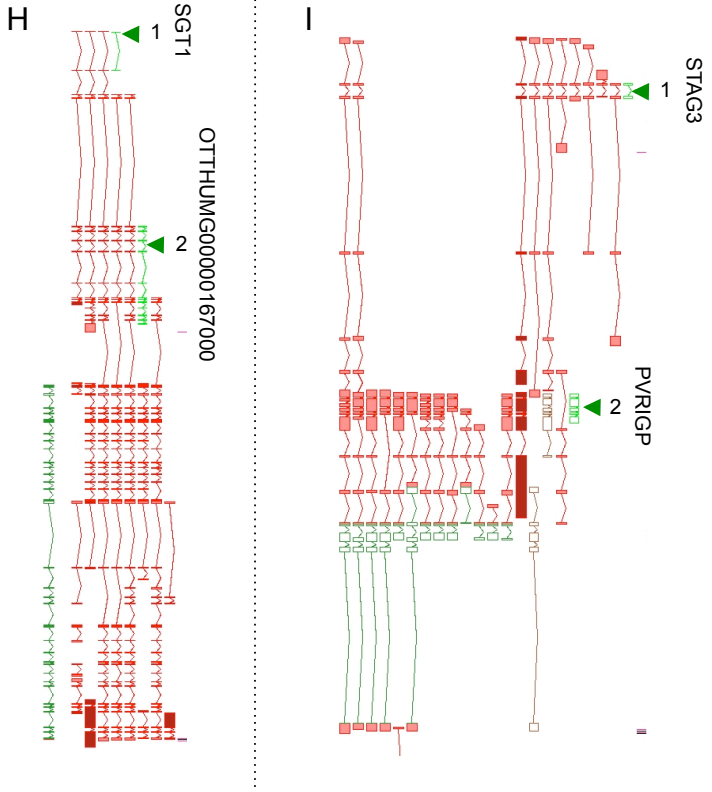


**Figure 3a:** Complexity of pseudogenes.

Pseudogene linked by transcript(s)



Pseudogene linked by multiple transcripts and readthrough



**Figure 3b:** Complexity of pseudogenes.

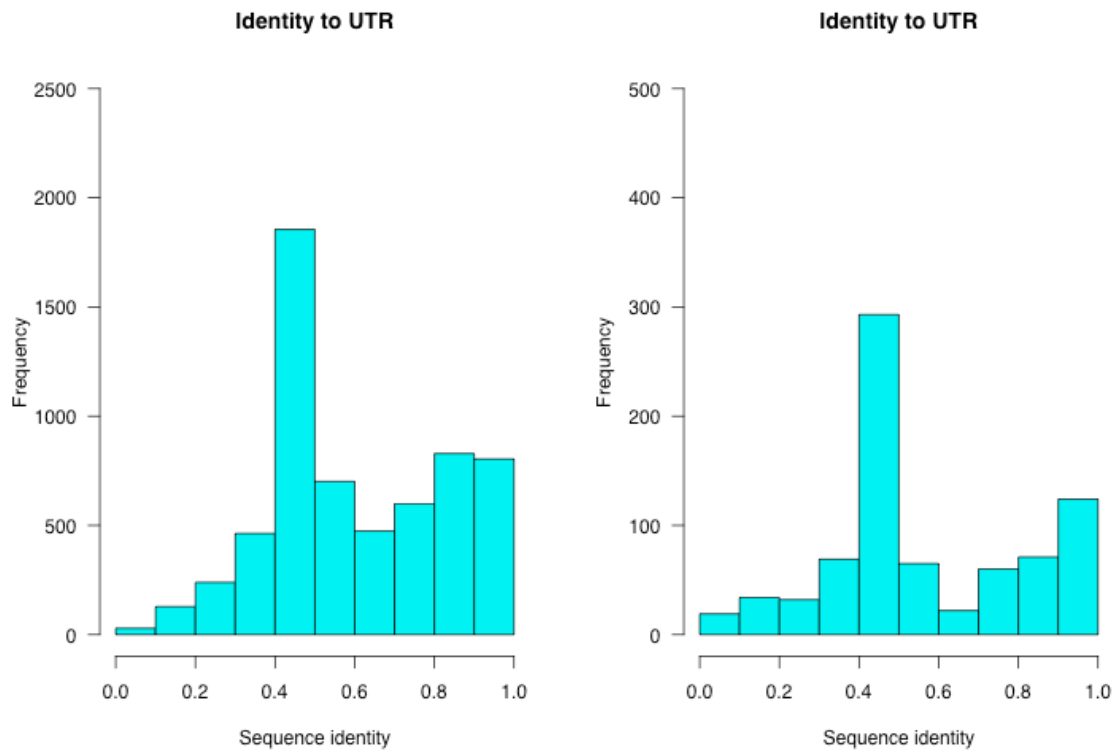


Figure 4a. Distribution of processed pseudogene sequence (left) and duplicated pseudogene sequence (right) identity to parent UTR.

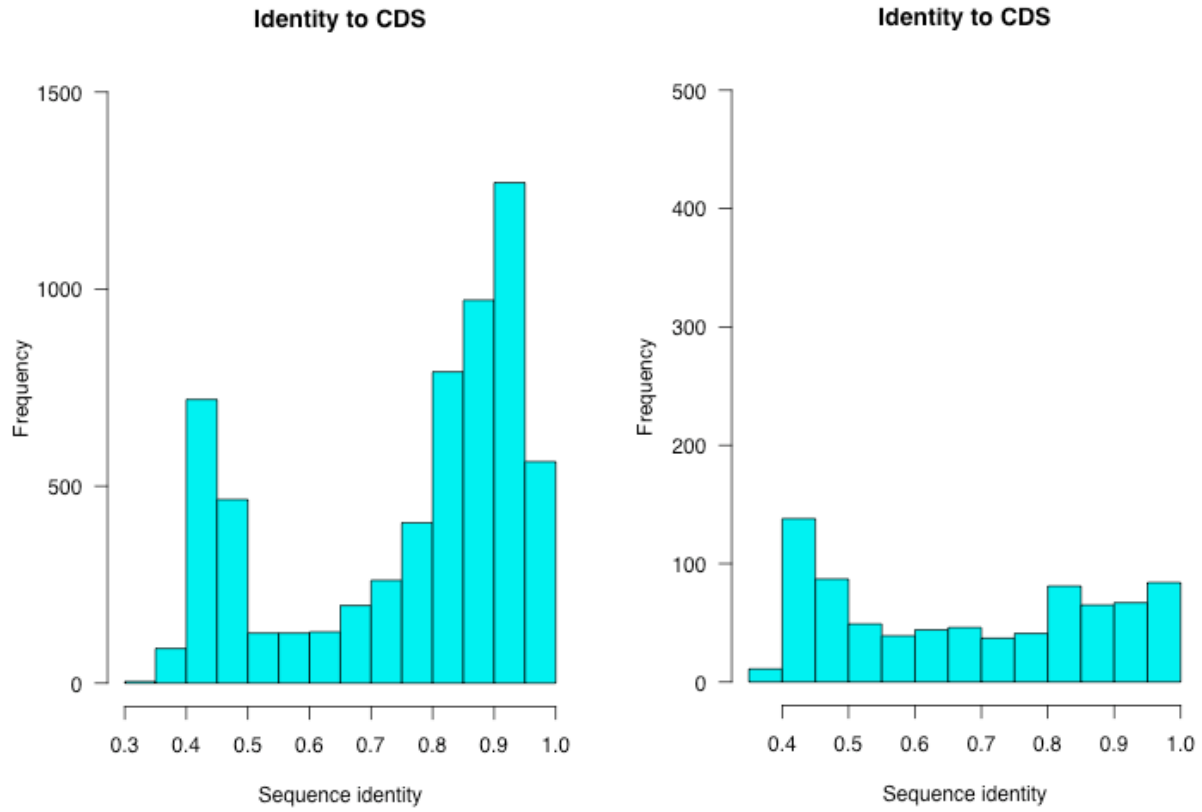


Figure 4b. Distribution of processed pseudogene sequence (left) and duplicated pseudogene sequence (right) identity to parent CDS.

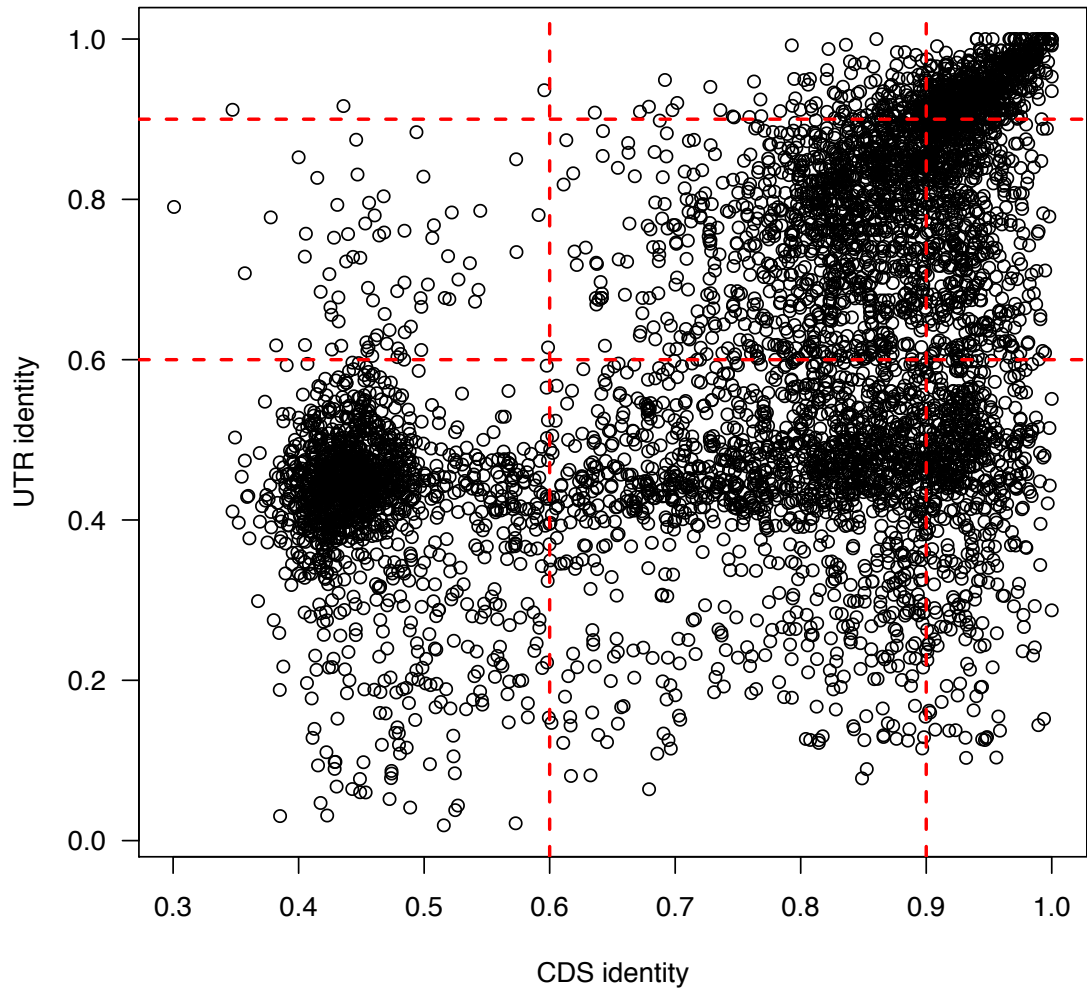
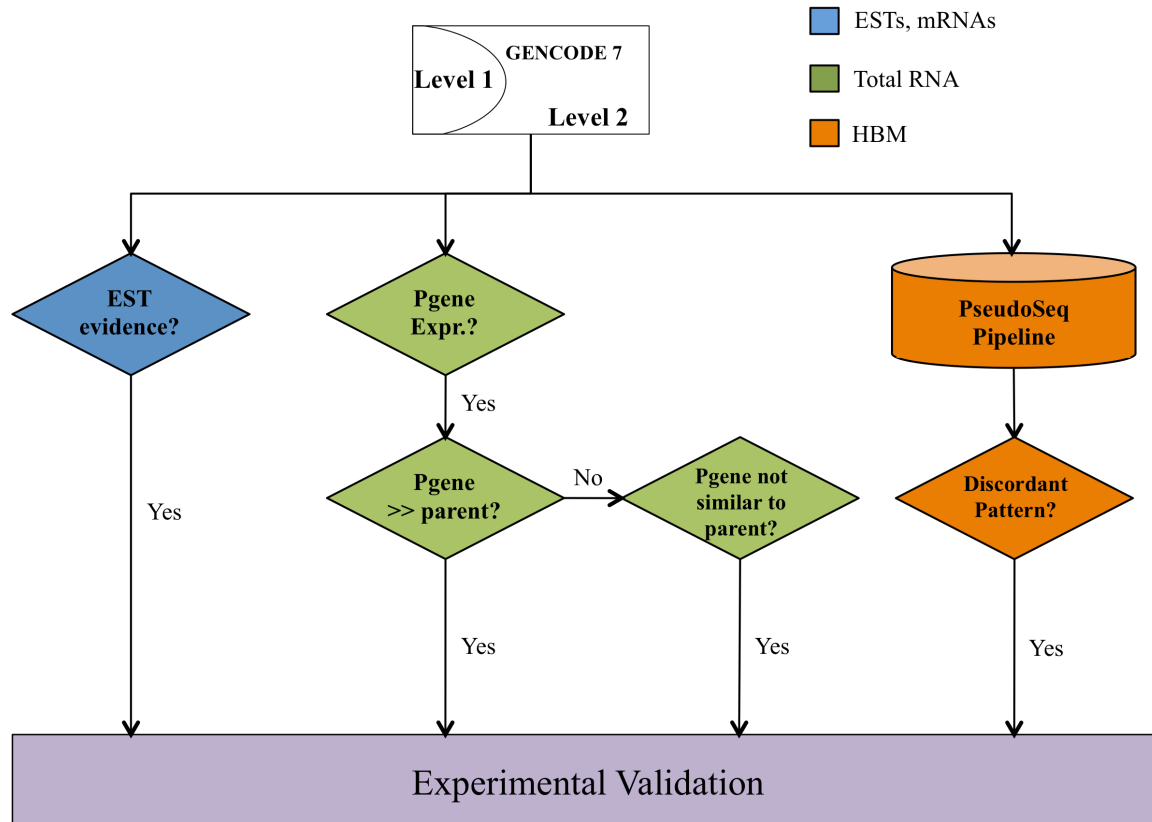
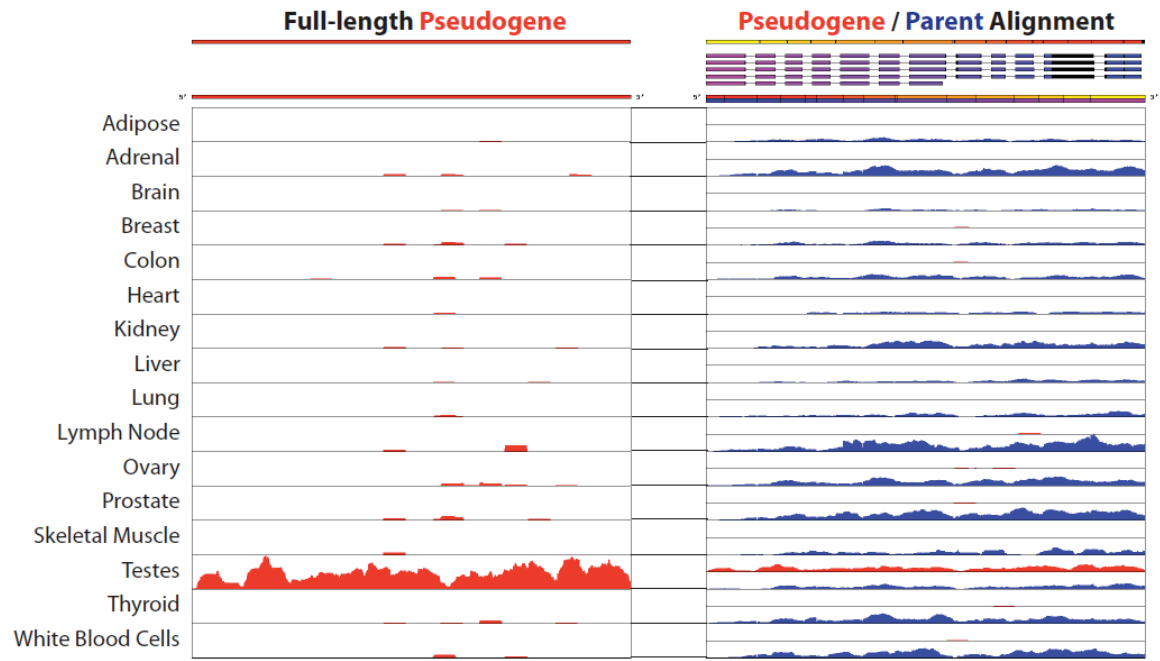


Figure 4c. Distribution of sequence identity to parent CDS.





**Figure 5a:** Transcription of pseudogenes.



ENSG00000232553.2\_ENST00000416636.1

Figure 5b. Transcriptions of pseudogenes

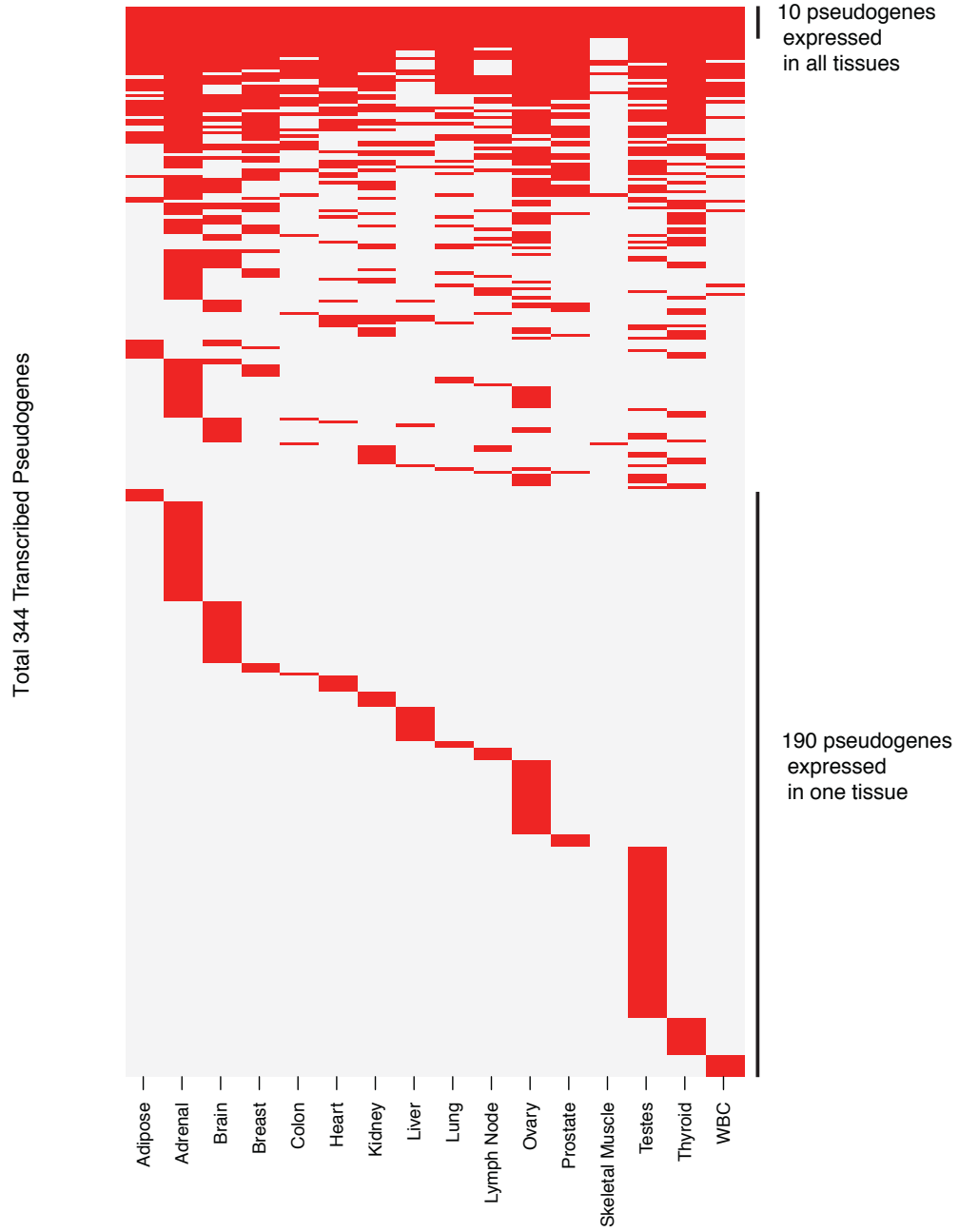


Figure 5c. Transcription of pseudogenes.

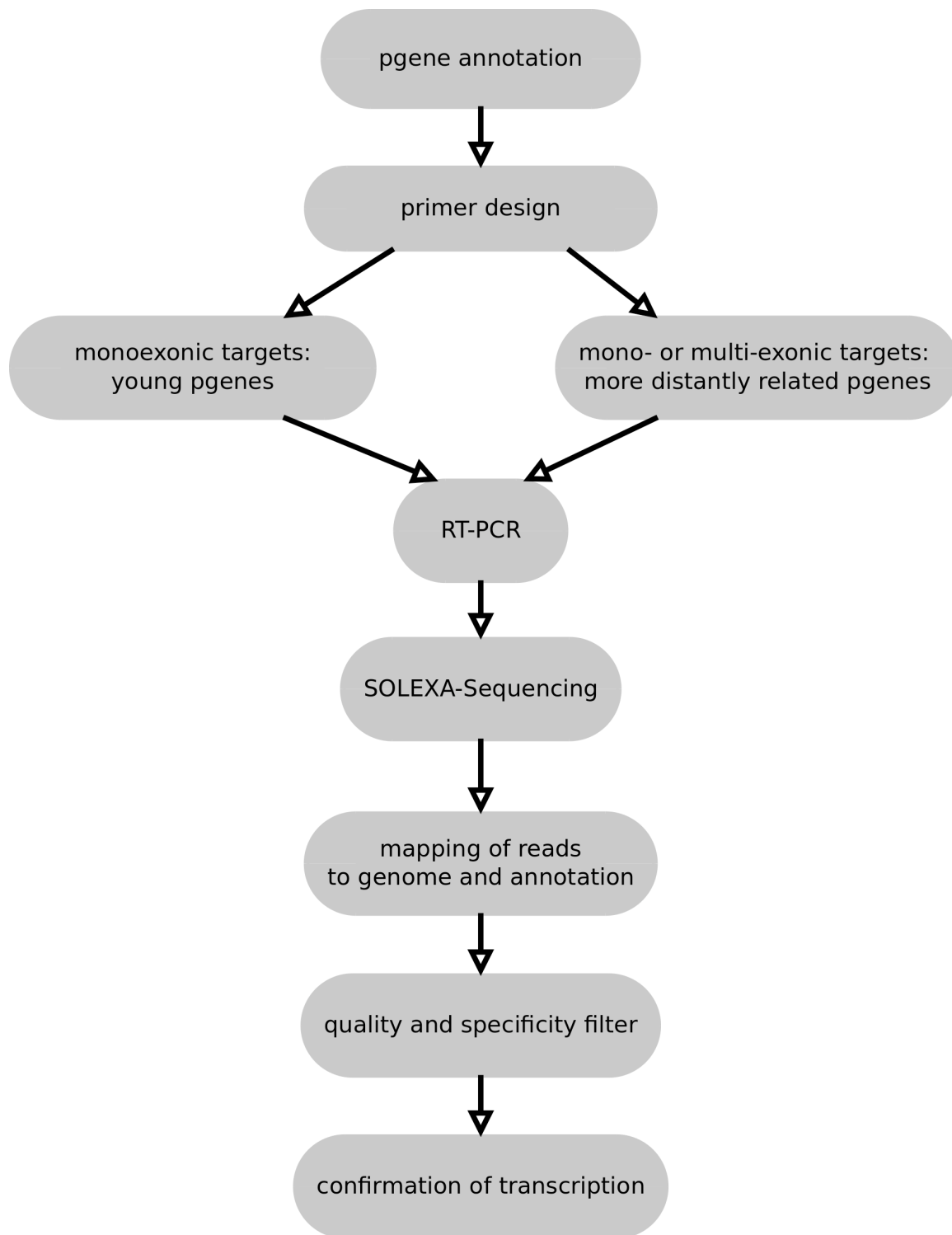


Figure 5d. Transcription of pseudogenes.

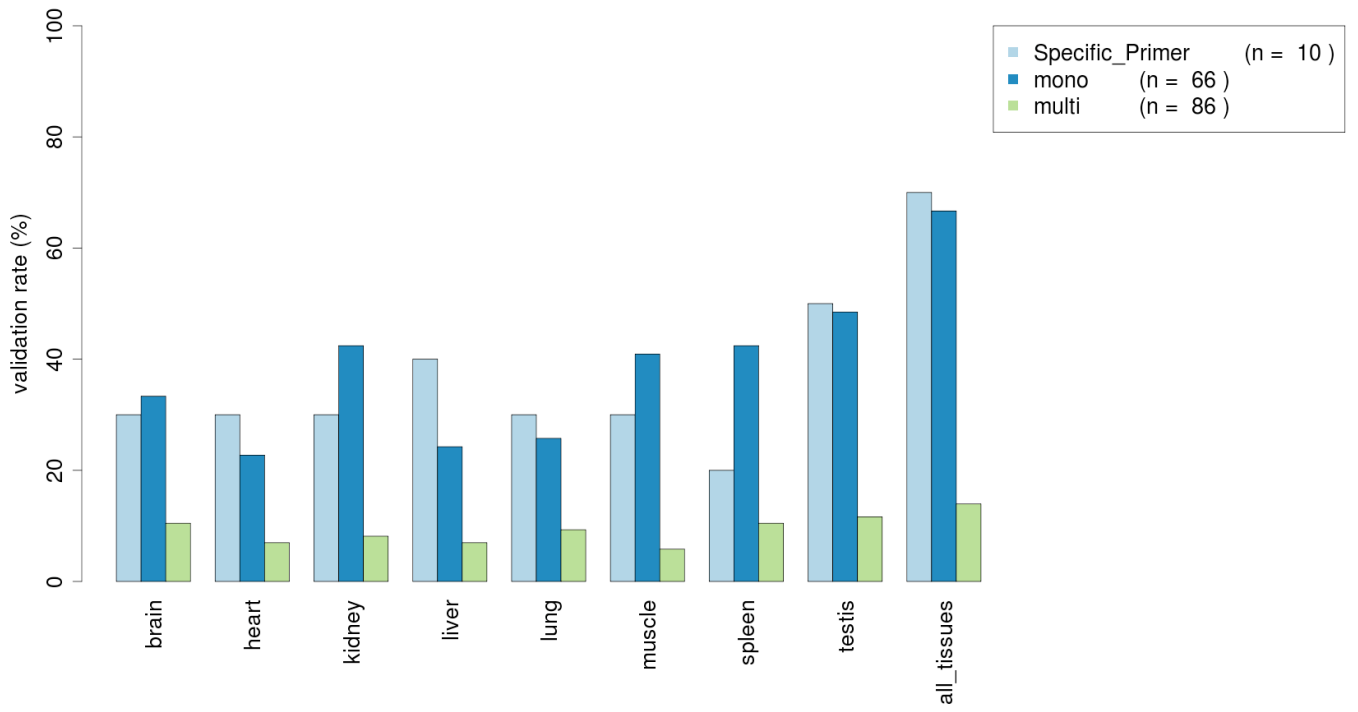
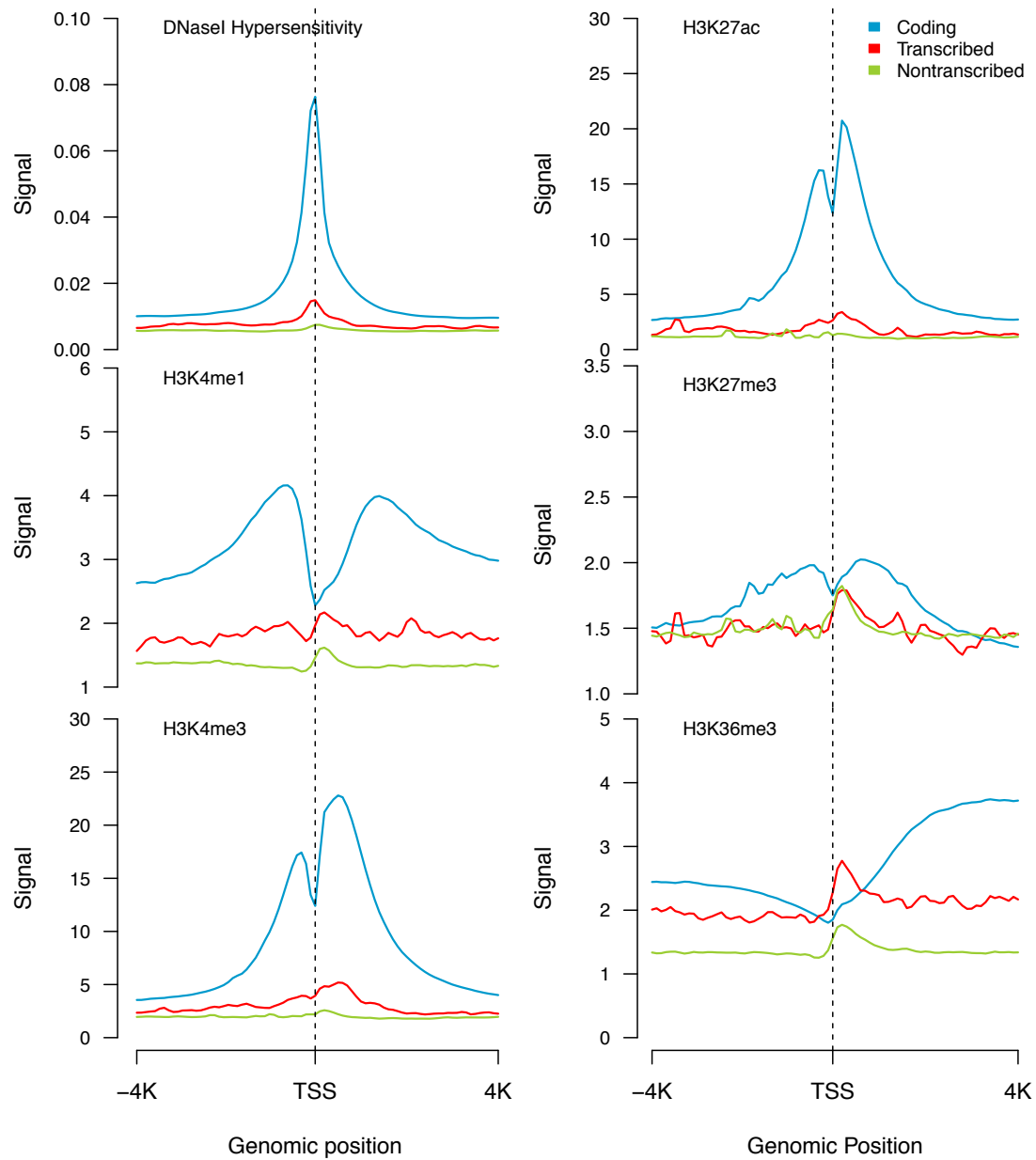
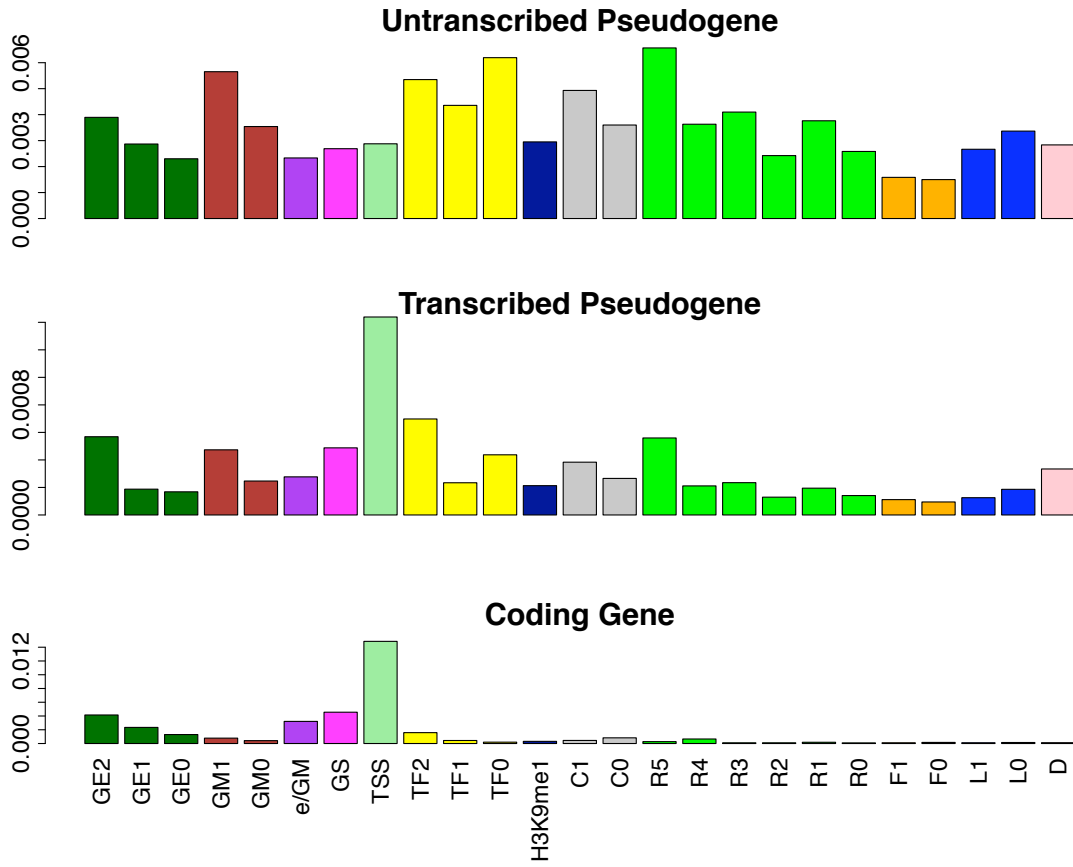


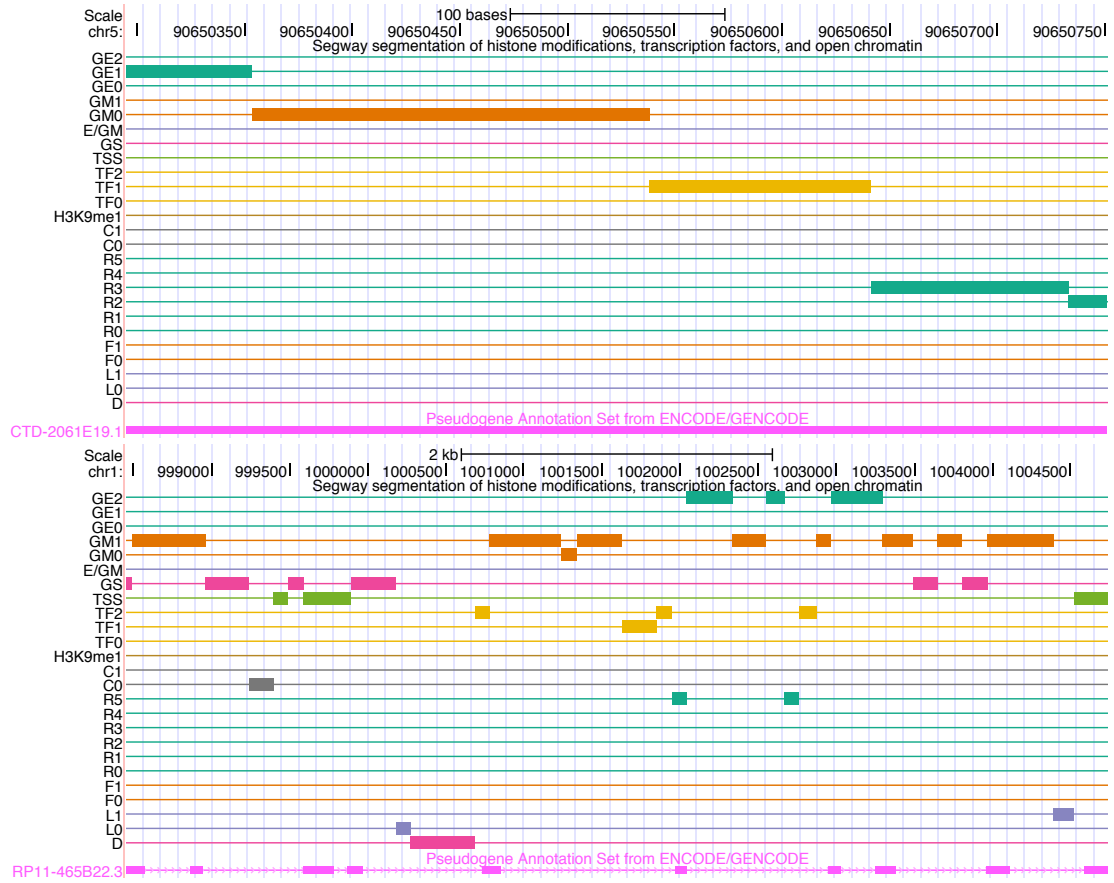
Figure 5e. Transcription of pseudogenes.



**Figure 6:** Average chromatin accessibility profiles and various histone modifications surrounding TSS for coding genes, transcribed pseudogenes and non-transcribed pseudogenes.

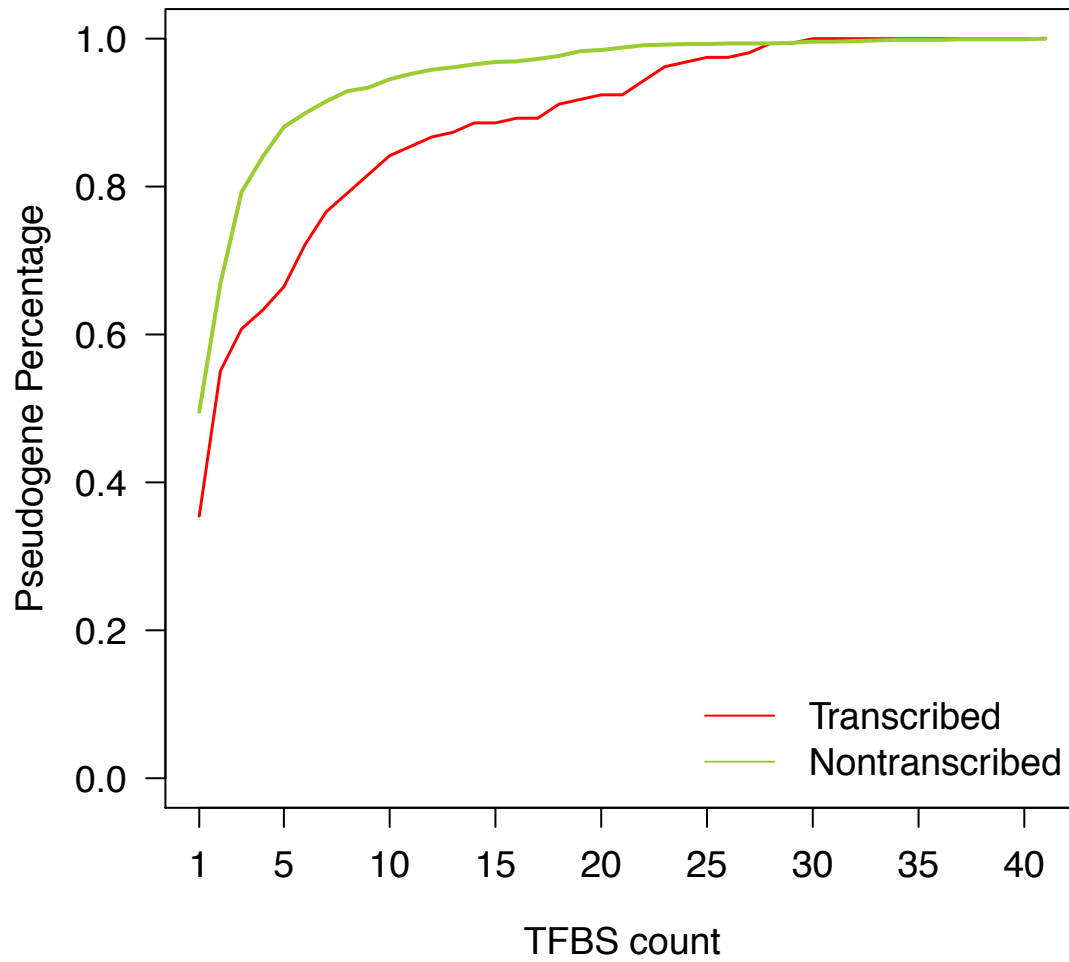


**Figure 7a:** Segway segmentation of pseudogene.

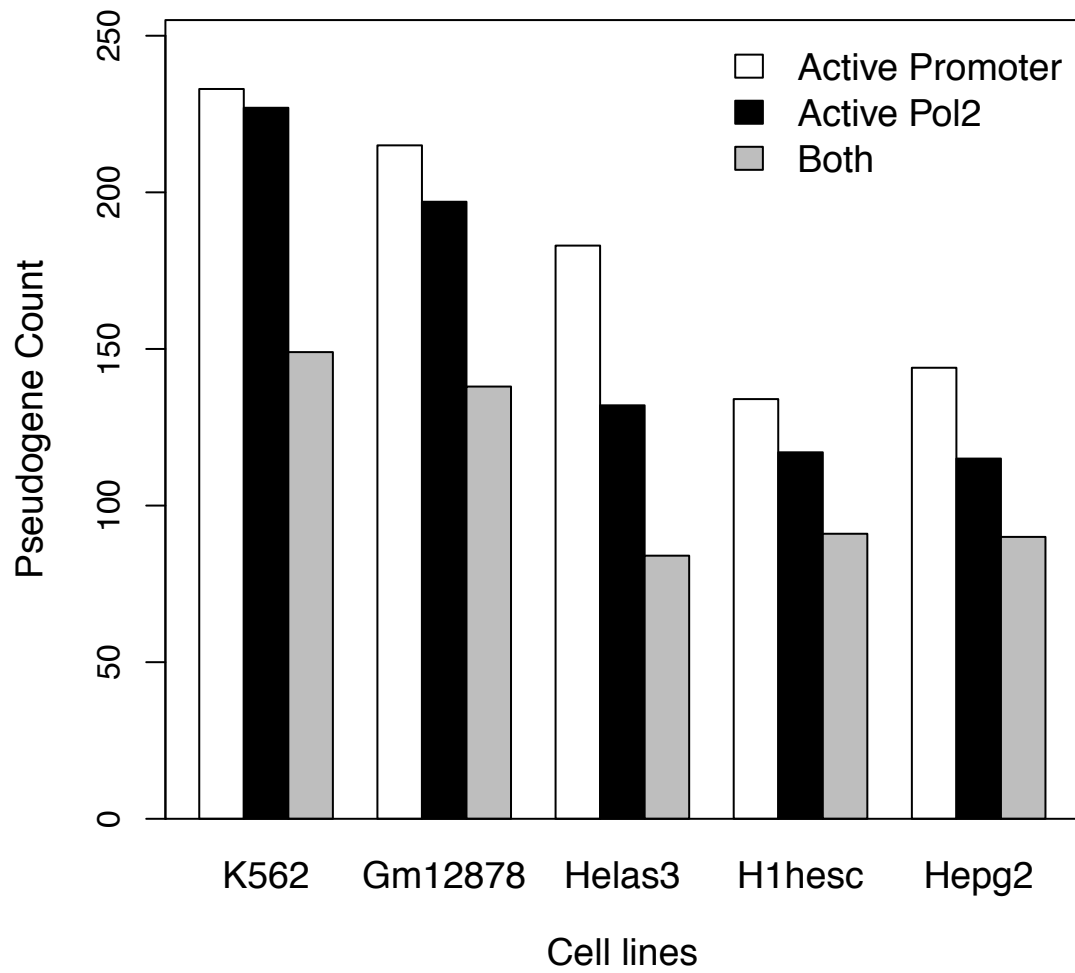


**Figure 7b,c:** Segway segmentation of pseudogene.

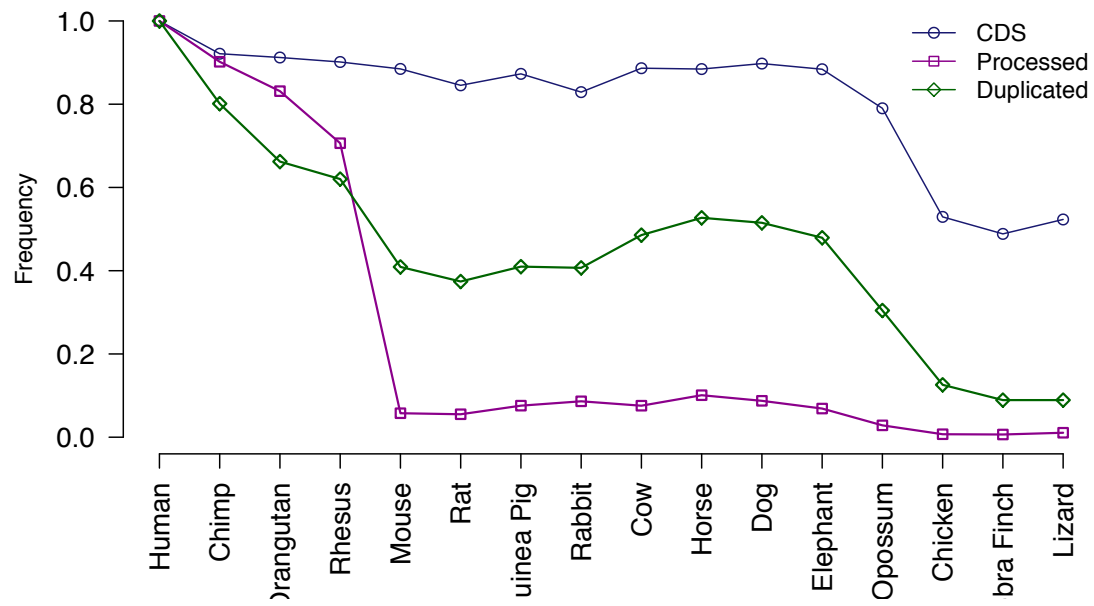




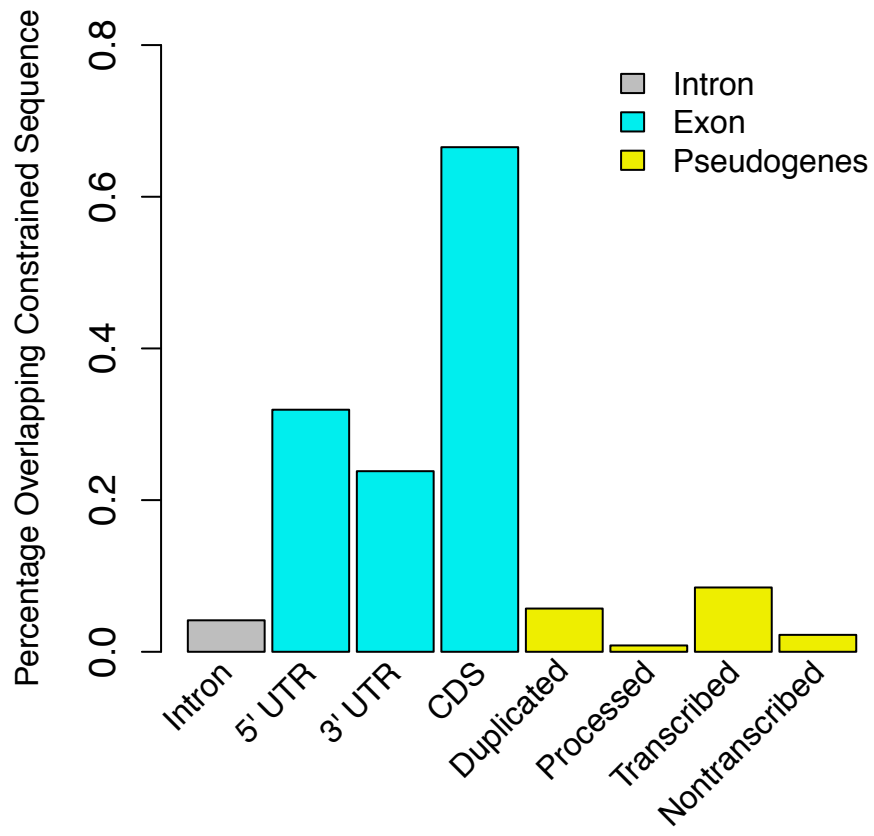
**Figure 8a:** Distribution of pseudogenes with different number of TFBS in their upstream sequences.



**Figure 8b:** Number of pseudogenes with active promoter, active pol2 binding sites or both in different cell lines.

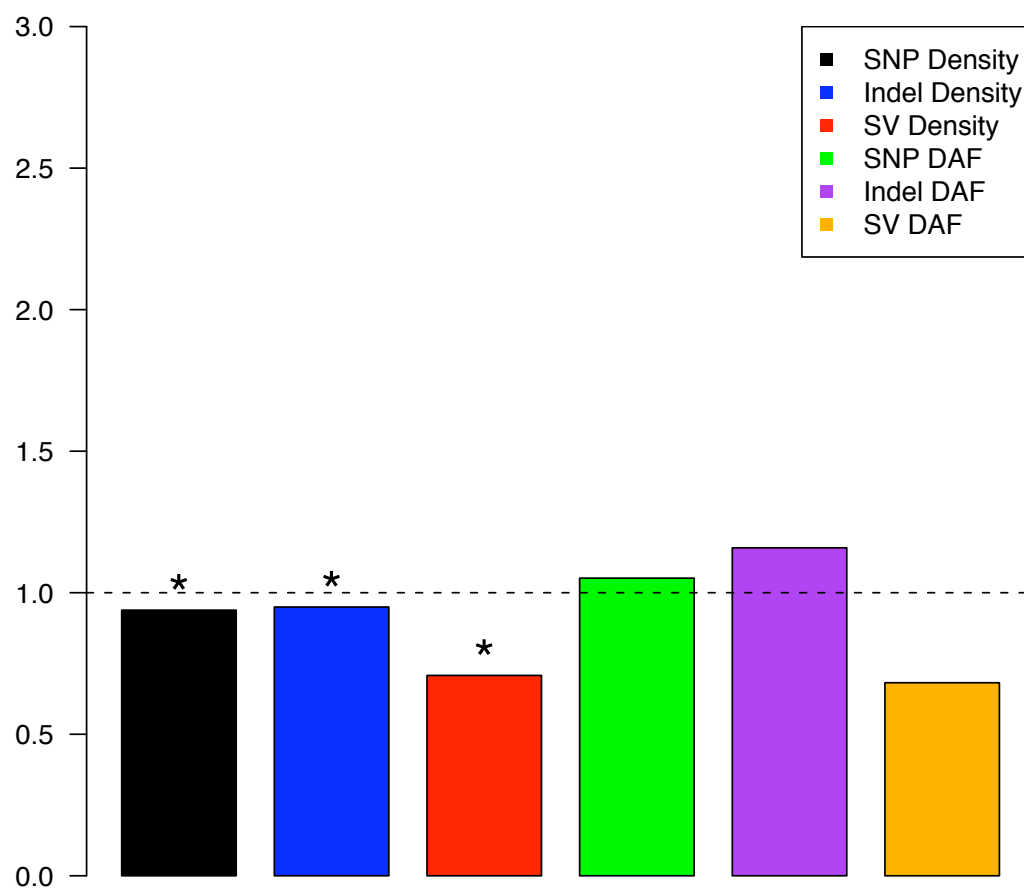


**Figure 9:** Preservation of human coding sequences, processed pseudogenes and duplicated pseudogenes.

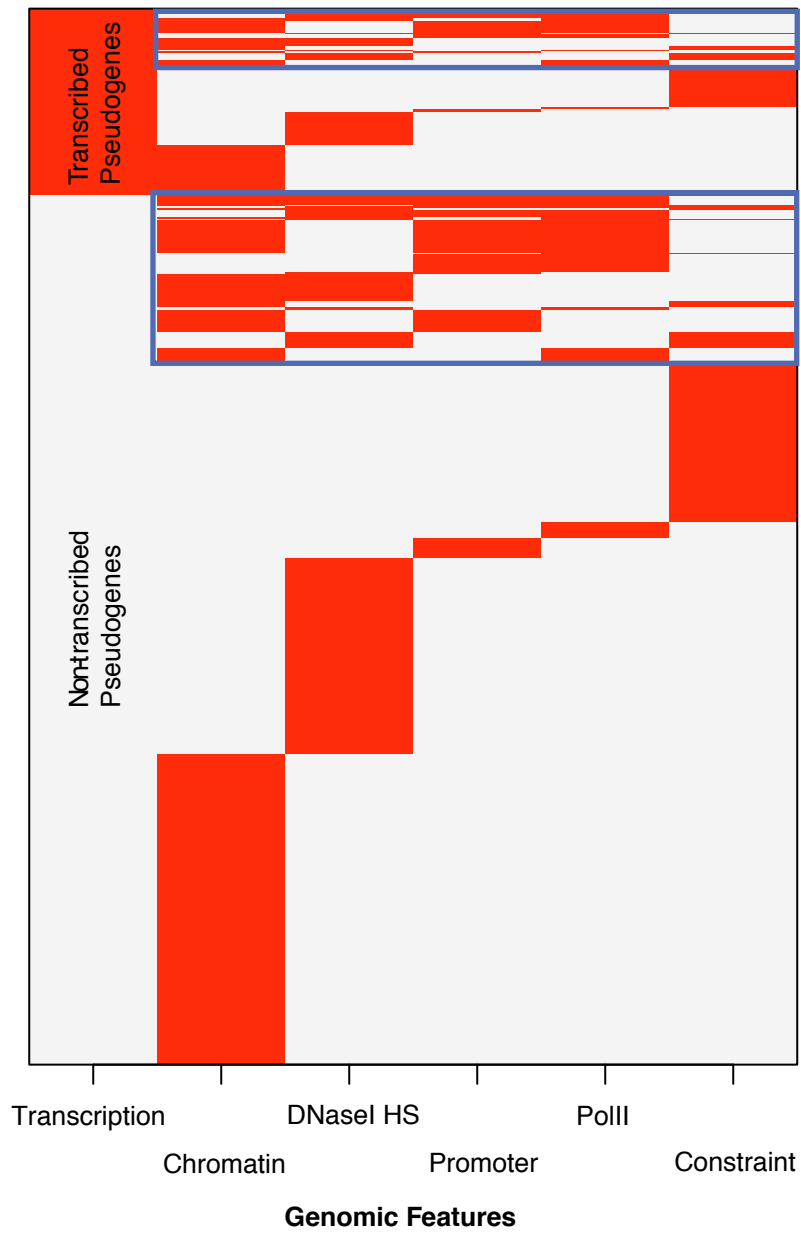


**Figure 10a:** Evolutionary constraint on pseudogenes.

### pgeneExonWithExpEvidence



**Figure 10b:** Evolutionary constraint on pseudogenes.



**Figure 11a:** Summary of pseudogene annotation and case studies.



**Figure 11b,c:** Summary of pseudogene annotation and case studies.