

Results by Gibby:

Klf4 peaks:

gibby -p peaks.txt -t homer -g GRCm38.fa -s 50 -k 20 -i 100

50 filtered score

100 iterations

20 mer

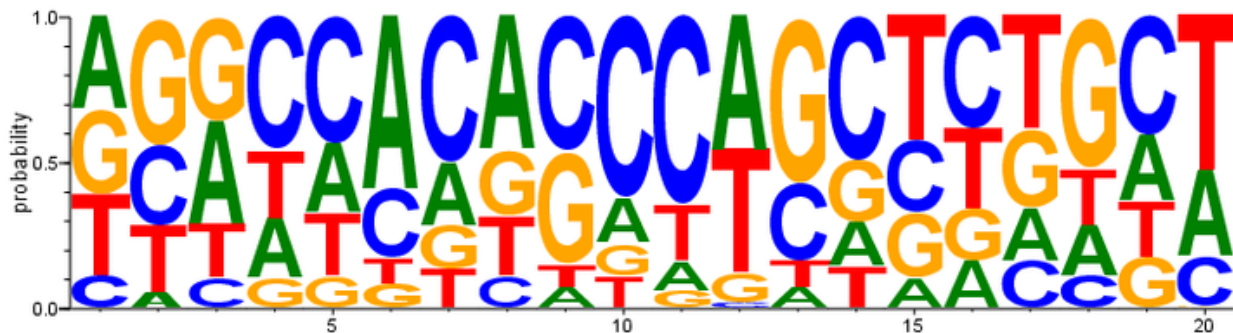


gibby -p peaks.txt -t homer -g GRCm38.fa -s 50 -k 20 -i 500

50 filtered score

500 iterations

20 mer



gibby -p peaks.txt -t homer -g GRCm38.fa -s 50 -k 12 -i 1000

50 filtered score

1000 iterations

12 mer

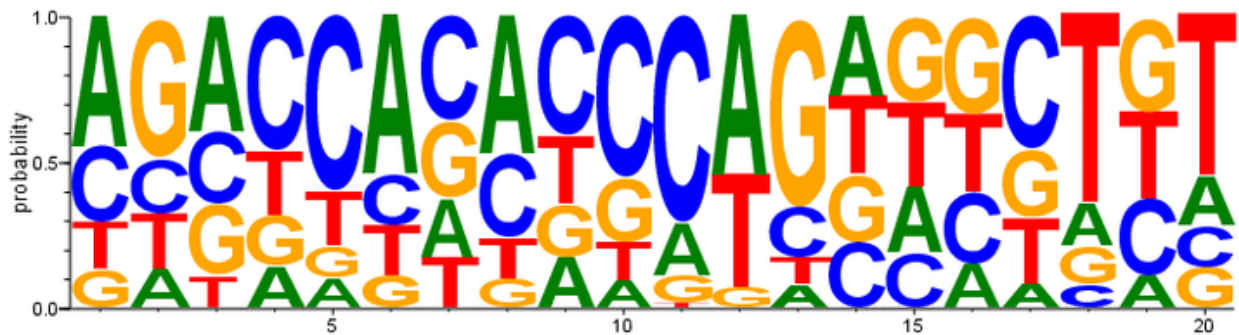


gibby -p peaks.txt -t homer -g GRCm38.fa -s 50 -k 20 -i 500

50 filtered score

500 iterations

20 mer

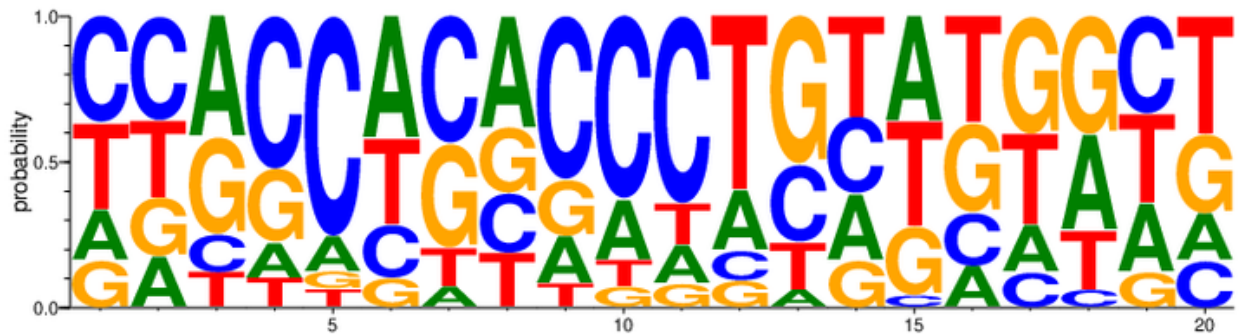


gibby -p peaks.txt -t homer -g GRCm38.fa -s 50 -k 20 -i 500

50 filtered score

500 iterations

20 mer



gibby -p peaks.txt -t homer -g GRCm38.fa -s 75 -k 20 -i 500

75 filtered score

500 iterations

20 mer



gibby -p peaks.txt -t homer -g GRCm38.fa -s 35 -k 20 -i 500

35 filtered score

500 iterations

20 mer



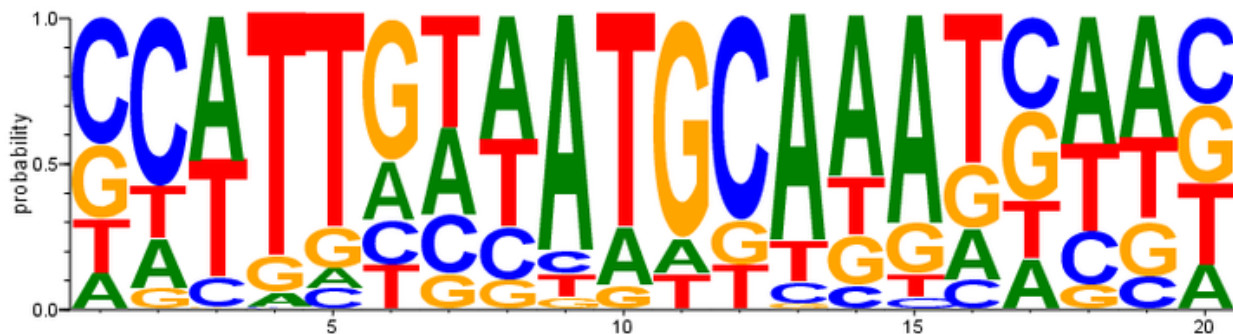
Oct4

gibby -p peaks.txt -t homer -g GRCm38.fa -s 75 -k 20 -i 500

75 filtered score

500 iterations

20 mer

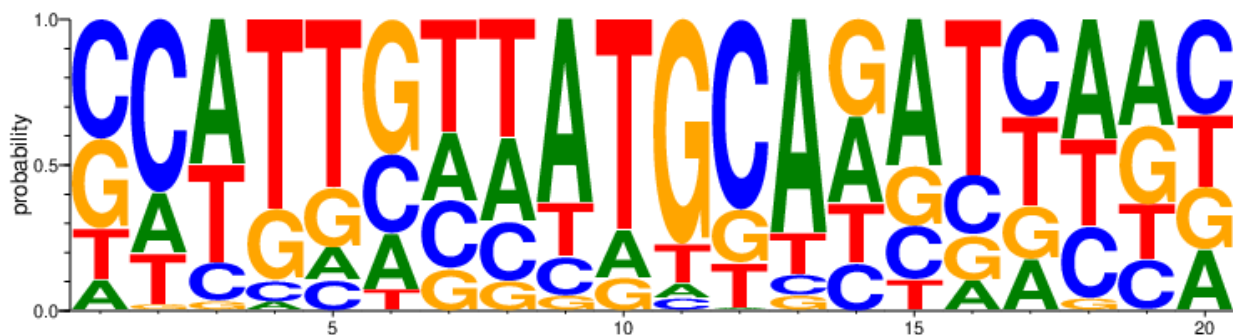


gibby -p peaks.txt -t homer -g GRCm38.fa -s 60 -k 20 -i 500

60 filtered score

500 iterations

20 mer

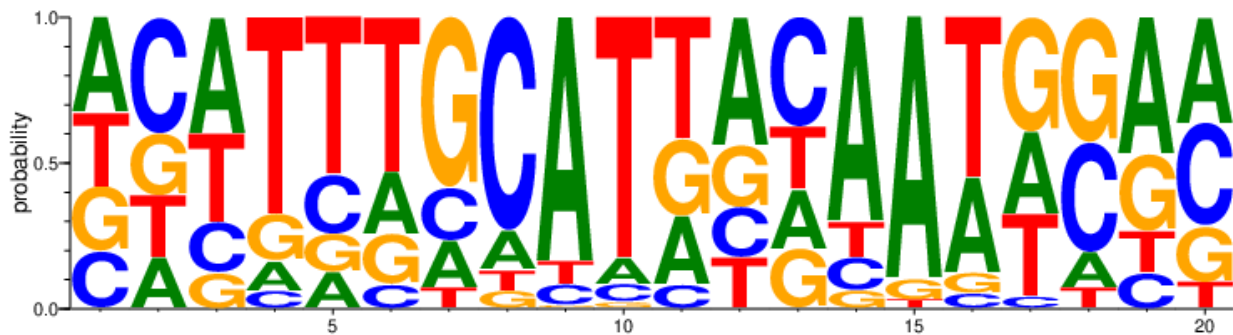


gibby -p peaks.txt -t homer -g GRCm38.fa -s 60 -k 20 -i 1000

60 filtered score

1000 iterations

20 mer; **Reverse Complement**



Sox2

gibby -p peaks.txt -t homer -g GRCm38.fa -s 60 -k 20 -i 500

60 filtered score

500 iterations

20 mer



gibby -p peaks.txt -t homer -g GRCm38.fa -s 60 -k 20 -i 500

60 filtered score




500 iterations

20 mer






Results by HOMER:




Klf4

Rank	Motif	P-value
1		1e-465
2		1e-69
3		1e-27

Oct4/pou5f1

Rank	Motif	P-value
1		1e-333
2		1e-86
3		1e-40

Sox2

Rank	Motif	P-value
1		1e-256
2		1e-194
3		1e-85

Runtime Analysis:

Gibby:

Measure-Command { python gibby_run.py -p ENCFF664TYB.bed -t bed -g hg38.fa -i 500 }

Runtime: 15.6983508416667 minutes

MEME-ChIP: (File included in Repo)

Runtime: ~71.0645 minutes

Homer:

```
{ time findMotifsGenome.pl \  
  ~/lab5/ENCFF664TYB.bed \  
  /home/ktanaka/lab5/genomes/hg38.fa \  
  ~/lab5/motifs/ZNF \  
  -mask \  
  -parsedDir ~/lab5/parsed/ ; } 2> time_results.txt
```

Runtime: 56.96103 minutes

RSAT: (File included in Repo)

Runtime: 0.35 minutes