MP10k

Summary

General

fastp version:	0.19.4 (https://github.com/OpenGene/fastp)
sequencing:	paired end (151 cycles + 151 cycles)
mean length before filtering:	151bp, 151bp
mean length after filtering:	149bp, 149bp
duplication rate:	70.067730%
Insert size peak:	0

Before filtering

total reads:	446.717352 M
total bases:	67.454320 G
Q20 bases:	62.581933 G (92.776761%)
Q30 bases:	57.303928 G (84.952198%)
GC content:	44.969723%

After filtering

total reads:	334.744784 M
total bases:	50.109674 G
Q20 bases:	48.660270 G (97.107537%)
Q30 bases:	45.704291 G (91.208519%)
GC content:	42.618955%

Filtering result

reads passed filters:	334.744784 M (74.934359%)
reads with low quality:	103.226866 M (23.107870%)
reads with too many N:	2.802000 K (0.000627%)
reads too short:	8.725694 M (1.953292%)
reads with low complexity:	17.206000 K (0.003852%)

Adapters

Adapter or bad ligation of read1

The input has little adapter percentage (~0.372463%), probably it's trimmed before.

Sequence	Occurrences
A	68599
AG	60334
AGA	68812
AGAT	59534
AGATC	

	65833
AGATCG	65081
AGATCGG	56868
AGATCGGA	57555
AGATCGGAA	57759
AGATCGGAAG	54905
AGATCGGAAGA	56033
AGATCGGAAGAG	54606
AGATCGGAAGAGC	51860
AGATCGGAAGAGCA	57361
AGATCGGAAGAGCAC	61168
AGATCGGAAGAGCACA	52506
AGATCGGAAGAGCACAC	51798
AGATCGGAAGAGCACACG	49885
AGATCGGAAGAGCACACGT	44528
AGATCGGAAGAGCACACGTC	46722
AGATCGGAAGAGCACACGTCT	44768
AGATCGGAAGAGCACACGTCTG	43424
AGATCGGAAGAGCACACGTCTGA	43889
AGATCGGAAGAGCACACGTCTGAA	43657
AGATCGGAAGAGCACACGTCTGAAC	43251
AGATCGGAAGAGCACACGTCTGAACT	41374
AGATCGGAAGAGCACACGTCTGAACTC	45168
AGATCGGAAGAGCACACGTCTGAACTCC	39336
AGATCGGAAGAGCACACGTCTGAACTCCA	40941
AGATCGGAAGAGCACACGTCTGAACTCCAG	38276
AGATCGGAAGAGCACACGTCTGAACTCCAGTC	42963
AGATCGGAAGAGCACACGTCTGAACTCCAGTCA	42092
AGATCGGAAGAGCACACGTCTGAACTCCAGTCAC	37147
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTA	49551
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAA	43605
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATC	48912
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTT	46105
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAA	46532
other adapter sequences	1759669

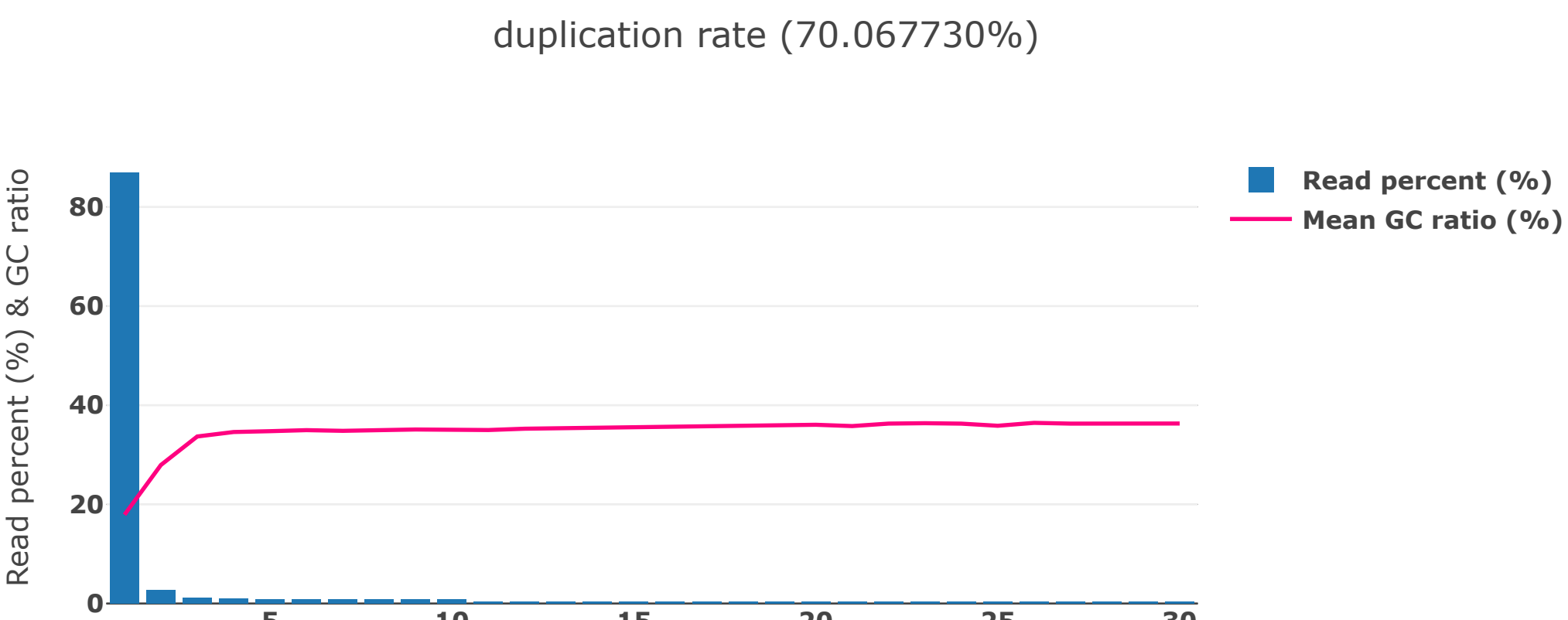
Adapter or bad ligation of read2

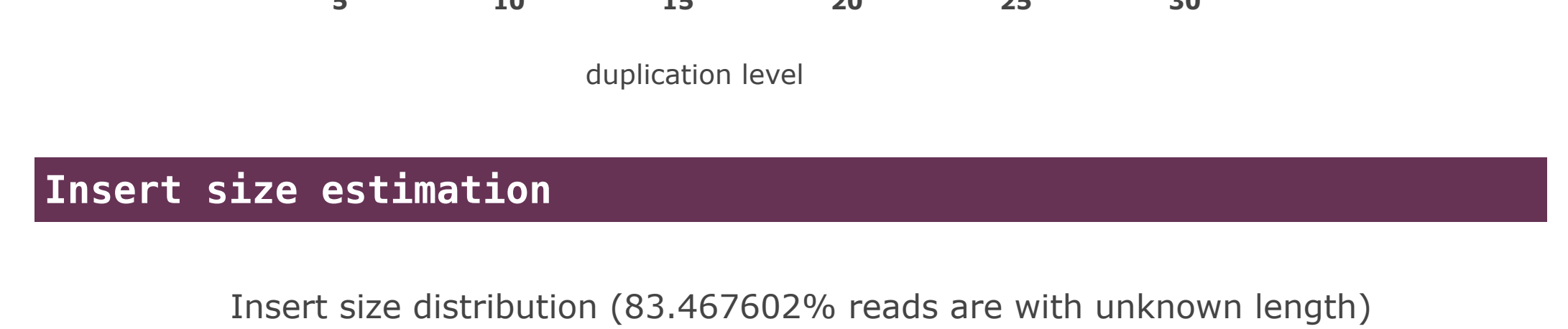
The input has little adapter percentage (~0.327220%), probably it's trimmed before.

Sequence	Occurrences
A	68470
AG	59629
AGA	66817

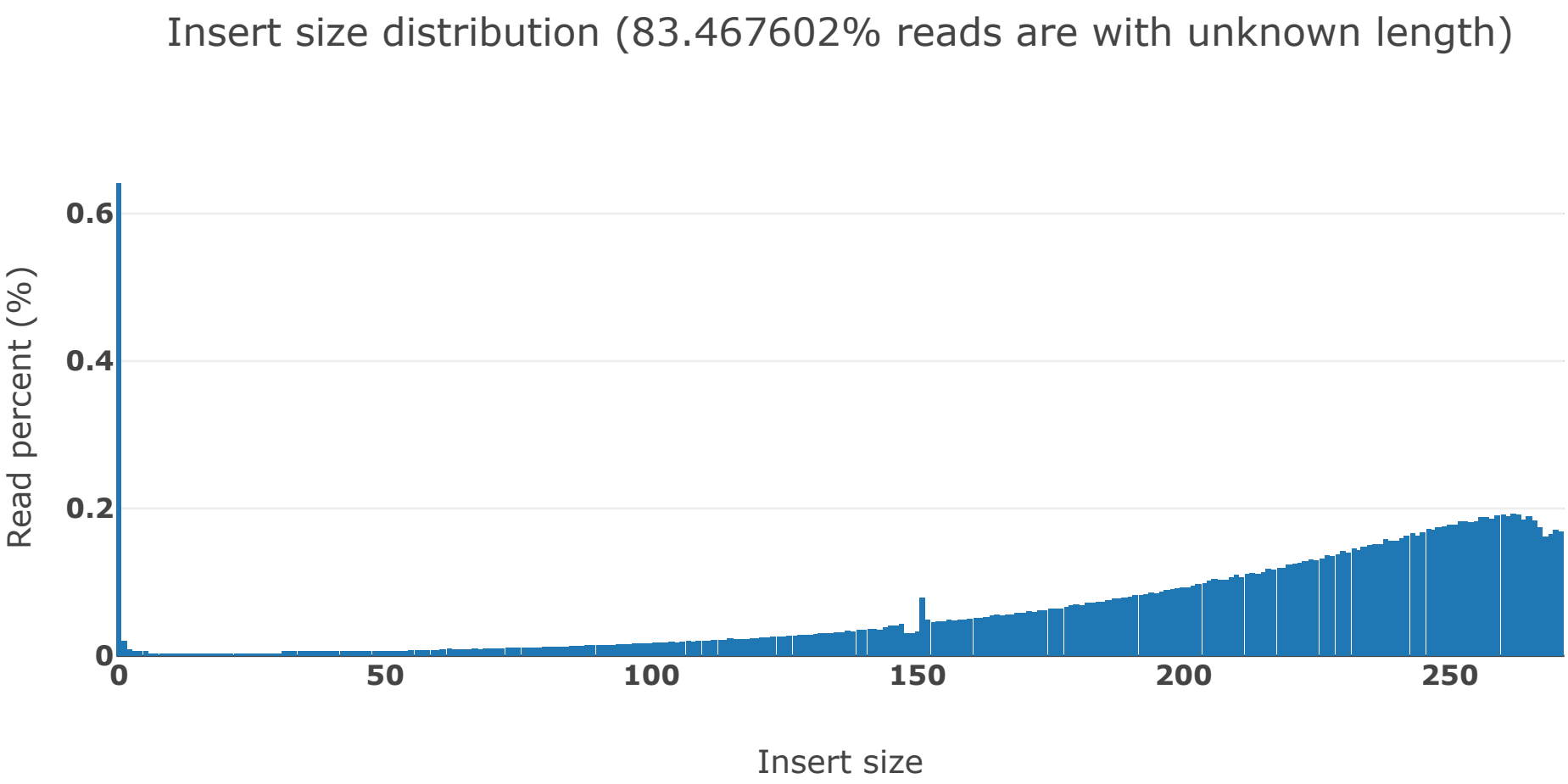
AGAT	62554
AGATC	70824
AGATCG	66301
AGATCGG	61251
AGATCGGA	58401
AGATCGGAA	56142
AGATCGGAAG	56859
AGATCGGAAGA	61624
AGATCGGAAGAG	57525
AGATCGGAAGAGC	56216
AGATCGGAAGAGCG	63747
AGATCGGAAGAGCGT	48893
AGATCGGAAGAGCGTC	65289
AGATCGGAAGAGCGTCG	57510
AGATCGGAAGAGCGTCGT	50858
AGATCGGAAGAGCGTCGTG	51462
AGATCGGAAGAGCGTCGTGT	45625
AGATCGGAAGAGCGTCGTGTA	57181
AGATCGGAAGAGCGTCGTGTAG	141021
AGATCGGAAGAGCGTCGTGTAGG	118913
AGATCGGAAGAGCGTCGTGTAGGG	50658
AGATCGGAAGAGCGTCGTGTAGGGA	72040
AGATCGGAAGAGCGTCGTGTAGGGAAA	81911
AGATCGGAAGAGCGTCGTGTAGGGAAAGA	45206
AGATCGGAAGAGCGTCGTGTAGGGAAAGAG	79110
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGT	47063
other adapter sequences	1894156

Duplication





Insert size estimation

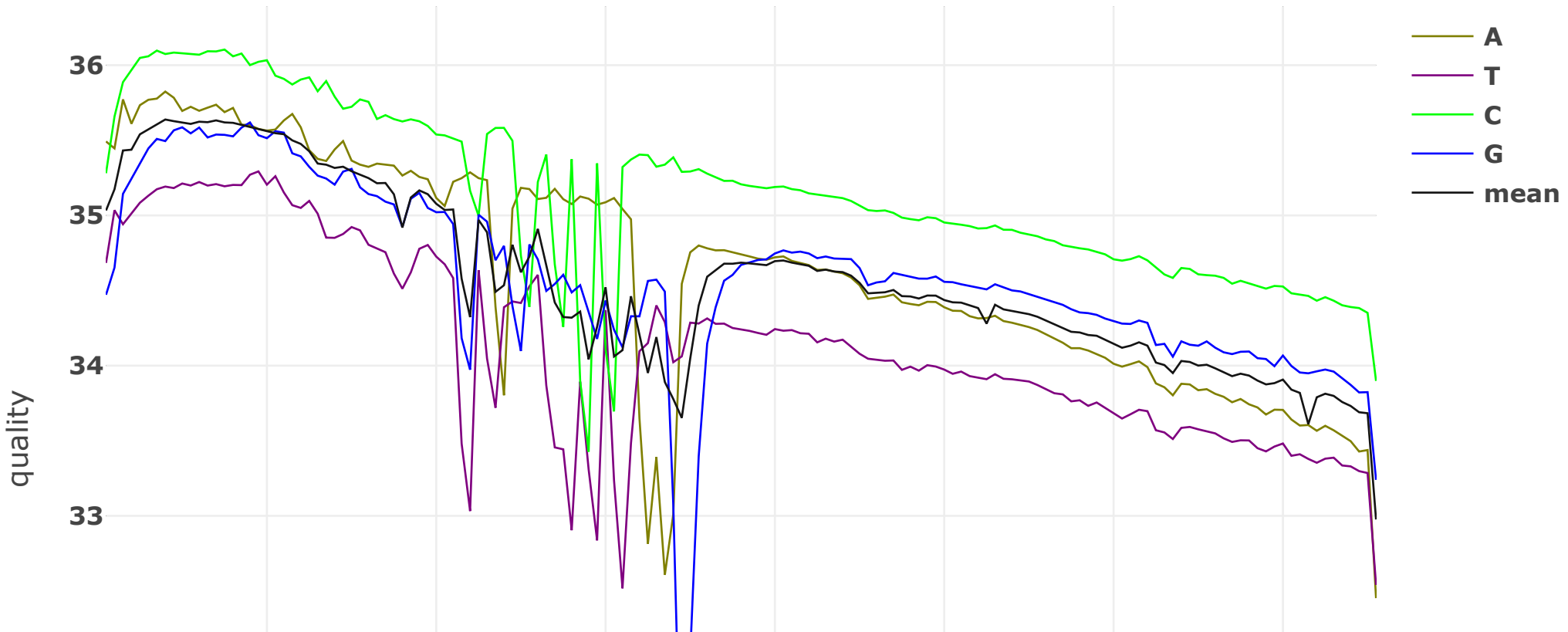


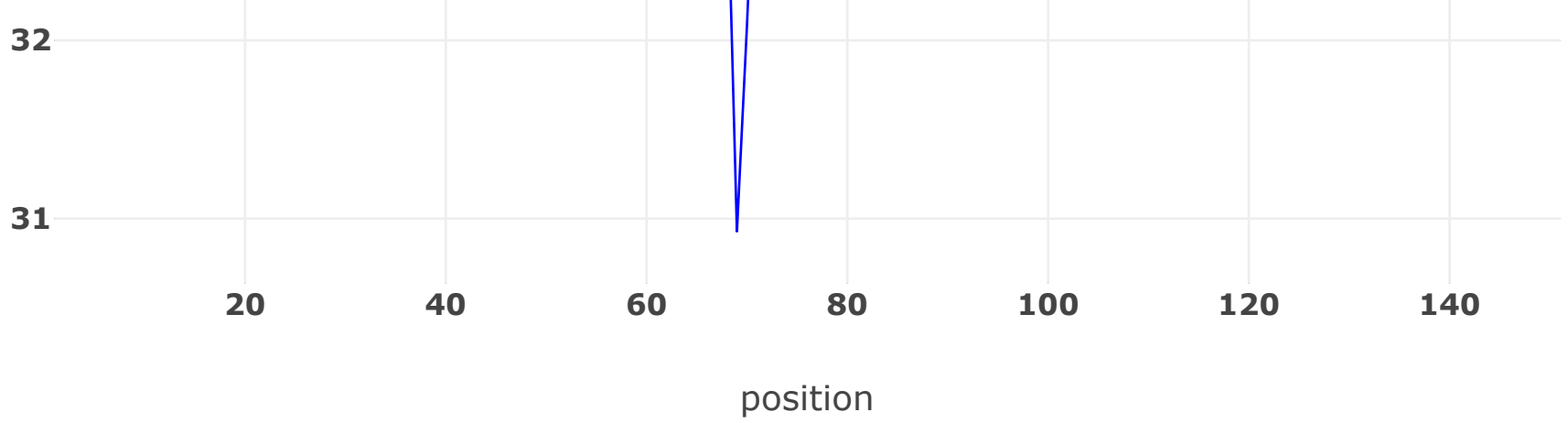
This estimation is based on paired-end overlap analysis, and there are 83.467602% reads found not overlapped.
The nonoverlapped read pairs may have insert size <30 or >272, or contain too much sequencing errors to be detected as overlapped.

Before filtering

Before filtering: read1: quality

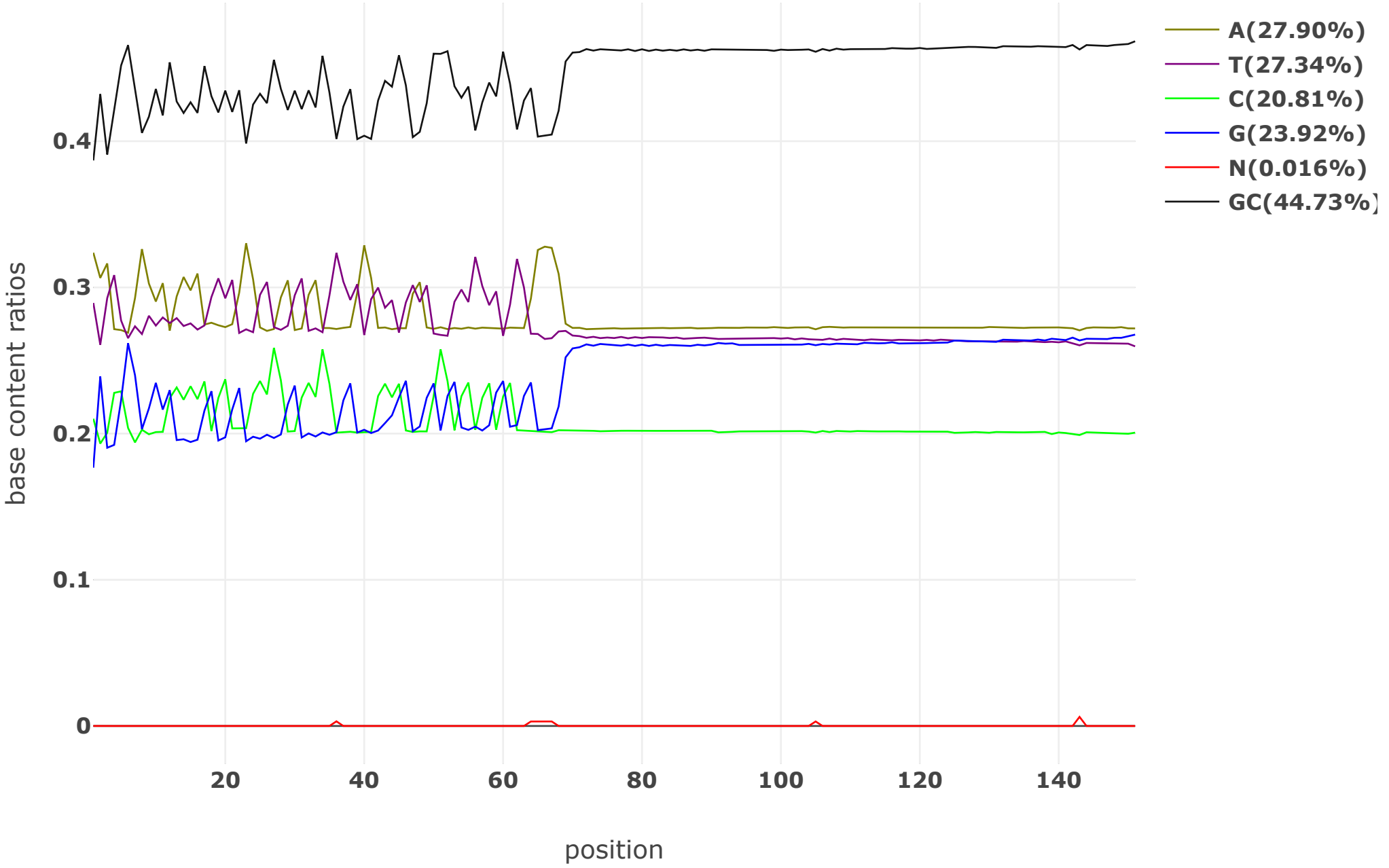
Value of each position will be shown on mouse over.





Before filtering: read1: base contents

Value of each position will be shown on mouse over.



Before filtering: read1: KMER counting

Darker background means larger counts. The count will be shown on mouse over.

	AA	AT	AC	AG	TA	TT	TC	TG	CA	CT	CC	CG	GA	GT	GC	GG
AAA	AAAAA	AAAAT	AAAAC	AAAAG	AAATA	AAATT	AAATC	AAATG	AAACA	AAACT	AAACC	AAACG	AAAGA	AAAGT	AAAGC	AAAGG
AAT	AATAA	AATAT	AATAC	AATAG	AATTA	AATTT	AATTC	AATTG	AATCA	AATCT	AATCC	AATCG	AATGA	AATGT	AATGC	AATGG
AAC	AACAA	AACAT	AACAC	AACAG	AACTA	AACTT	AACTC	AACTG	AACCA	AACCT	AACCC	AACCG	AACGA	AACGT	AACGC	AACGG
AAG	AAGAA	AAGAT	AAGAC	AAGAG	AAGTA	AAGTT	AAGTC	AAGTG	AAGCA	AAGCT	AAGCC	AAGCG	AAGGA	AAGGT	AAGGC	AAGGG
ATA	ATAAA	ATAAT	ATAAC	ATAAG	ATATA	ATATT	ATATC	ATATG	ATACA	ATACT	ATACC	ATACG	ATAGA	ATAGT	ATAGC	ATAGG
ATT	ATTAA	ATTAT	ATTAC	ATTAG	ATTTA	ATTTT	ATTTC	ATTTG	ATTCA	ATTCT	ATTCC	ATTCG	ATTGA	ATTGT	ATTGC	ATTGG
ATC	ATCAA	ATCAT	ATCAC	ATCAG	ATCTA	ATCTT	ATCTC	ATCTG	ATCCA	ATCCT	ATCCC	ATCCG	ATCGA	ATCGT	ATCGC	ATCGG
ATG	ATGAA	ATGAT	ATGAC	ATGAG	ATGTA	ATGTT	ATGTC	ATGTG	ATGCA	ATGCT	ATGCC	ATGCG	ATGGA	ATGGT	ATGGC	ATGGG
ACA	ACAAA	ACAAT	ACAAC	ACAAG	ACATA	ACATT	ACATC	ACATG	ACACA	ACACT	ACACC	ACACG	ACAGA	ACAGT	ACAGC	ACAGG
ACT	ACTAA	ACTAT	ACTAC	ACTAG	ACTTA	ACTTT	ACTTC	ACTTG	ACTCA	ACTCT	ACTCC	ACTCG	ACTGA	ACTGT	ACTGC	ACTGG
ACC	ACCAA	ACCAT	ACCAC	ACCAG	ACCTA	ACCTT	ACCTC	ACCTG	ACCCA	ACCCT	ACCCC	ACCCG	ACCGA	ACCGT	ACCGC	ACCGG
ACG	ACGAA	ACGAT	ACGAC	ACGAG	ACGTA	ACGTT	ACGTC	ACGTG	ACGCA	ACGCT	ACGCC	ACGCG	ACGGA	ACGGT	ACGGC	ACGGG

AGA	AGAAA	AGAAT	AGAAC	AGAAG	AGATA	AGATT	AGATC	AGATG	AGACA	AGACT	AGACC	AGACG	AGAGA	AGAGT	AGAGC	AGAGG
AGT	AGTAA	AGTAT	AGTAC	AGTAG	AGTTA	AGTTT	AGTTC	AGTTG	AGTCA	AGTCT	AGTCC	AGTCG	AGTGA	AGTGT	AGTGC	AGTGG
AGC	AGCAA	AGCAT	AGCAC	AGCAG	AGCTA	AGCTT	AGCTC	AGCTG	AGCCA	AGCCT	AGCCC	AGCCG	AGCGA	AGCGT	AGCGC	AGCGG
AGG	AGGAA	AGGAT	AGGAC	AGGAG	AGGTA	AGGTT	AGGTC	AGGTG	AGGCA	AGGCT	AGGCC	AGGCG	AGGGA	AGGGT	AGGGC	AGGGG
TAA	TAAAA	TAAAT	TAAAC	TAAAG	TAATA	TAATT	TAATC	TAATG	TAACA	TAACT	TAACC	TAACG	TAAGA	TAAGT	TAAGC	TAAGG
TAT	TATAA	TATAT	TATAC	TATAG	TATTA	TATTT	TATTC	TATTG	TATCA	TATCT	TATCC	TATCG	TATGA	TATGT	TATGC	TATGG
TAC	TACAA	TACAT	TACAC	TACAG	TACTA	TACTT	TACTC	TACTG	TACCA	TACCT	TACCC	TACCG	TACGA	TACGT	TACGC	TACGG
TAG	TAGAA	TAGAT	TAGAC	TAGAG	TAGTA	TAGTT	TAGTC	TAGTG	TAGCA	TAGCT	TAGCC	TAGCG	TAGGA	TAGGT	TAGGC	TAGGG
TTA	TTAAA	TTAAT	TTAAC	TTAAG	TTATA	TTATT	TTATC	TTATG	TTACA	TTACT	TTACC	TTACG	TTAGA	TTAGT	TTAGC	TTAGG
TTT	TTTAA	TTTAT	TTTAC	TTTAG	TTTTA	TTTTT	TTTTC	TTTTG	TTTCA	TTTCT	TTTCC	TTTCG	TTTGA	TTTGT	TTTGC	TTTGG
TTC	TTCAA	TTCAT	TTCAC	TTCAG	TTCTA	TTCTT	TTCTC	TTCTG	TTCCA	TTCCT	TTCCC	TTCCG	TTCGA	TTCGT	TTCGC	TTCGG
TTG	TTGAA	TTGAT	TTGAC	TTGAG	TTGTA	TTGTT	TTGTC	TTGTG	TTGCA	TTGCT	TTGCC	TTGCG	TTGGA	TTGGT	TTGGC	TTGGG
TCA	TCAAA	TCAAT	TCAAC	TCAAG	TCATA	TCATT	TCATC	TCATG	TCACA	TCACT	TCACC	TCACG	TCAGA	TCAGT	TCAGC	TCAGG
TCT	TCTAA	TCTAT	TCTAC	TCTAG	TCTTA	TCTTT	TCTTC	TCTTG	TCTCA	TCTCT	TCTCC	TCTCG	TCTGA	TCTGT	TCTGC	TCTGG
TCC	TCCAA	TCCAT	TCCAC	TCCAG	TCCTA	TCCTT	TCCTC	TCCTG	TCCCA	TCCCT	TCCCC	TCCCG	TCCGA	TCCGT	TCCGC	TCCGG
TCG	TCGAA	TCGAT	TCGAC	TCGAG	TCGTA	TCGTT	TCGTC	TCGTG	TCGCA	TCGCT	TCGCC	TCGCG	TCGGA	TCGGT	TCGGC	TCGGG
TGA	TGAAA	TGAAT	TGAAC	TGAAG	TGATA	TGATT	TGATC	TGATG	TGACA	TGACT	TGACC	TGACG	TGAGA	TGAGT	TGAGC	TGAGG
TGT	TGTAA	TGTAT	TGTAC	TGTAG	TGTTA	TGTTT	TGTTC	TGTTG	TGTCA	TGTCT	TGTCC	TGTCG	TGTGA	TGTGT	TGTGC	TGTGG
TGC	TGCAA	TGCAT	TGCAC	TGCAG	TGCTA	TGCTT	TGCTC	TGCTG	TGCCA	TGCCT	TGCCC	TGCCG	TGCGA	TGCGT	TGCGC	TGCGG
TGG	TGGAA	TGGAT	TGGAC	TGGAG	TGGTA	TGGTT	TGGTC	TGGTG	TGGCA	TGGCT	TGGCC	TGGCG	TGGGA	TGGGT	TGGGC	TGGGG
CAA	CAAAA	CAAAT	CAAAC	CAAAG	CAATA	CAATT	CAATC	CAATG	CAACA	CAACT	CAACC	CAACG	CAAGA	CAAGT	CAAGC	CAAGG
CAT	CATAA	CATAT	CATAC	CATAG	CATTA	CATTT	CATTC	CATTG	CATCA	CATCT	CATCC	CATCG	CATGA	CATGT	CATGC	CATGG
CAC	CACAA	CACAT	CACAC	CACAG	CACTA	CACTT	CACTC	CACTG	CACCA	CACCT	CACCC	CACCG	CACGA	CACGT	CACGC	CACGG
CAG	CAGAA	CAGAT	CAGAC	CAGAG	CAGTA	CAGTT	CAGTC	CAGTG	CAGCA	CAGCT	CAGCC	CAGCG	CAGGA	CAGGT	CAGGC	CAGGG
CTA	CTAAA	CTAAT	CTAAC	CTAAG	CTATA	CTATT	CTATC	CTATG	CTACA	CTACT	CTACC	CTACG	CTAGA	CTAGT	CTAGC	CTAGG
CTT	CTTAA	CTTAT	CTTAC	CTTAG	CTTTA	CTTTT	CTTTC	CTTTG	CTTCA	CTTCT	CTTCC	CTTCG	CTTGA	CTTGT	CTTGC	CTTGG
CTC	CTCAA	CTCAT	CTCAC	CTCAG	CTCTA	CTCTT	CTCTC	CTCTG	CTCCA	CTCCT	CTCCC	CTCCG	CTCGA	CTCGT	CTCGC	CTCGG
CTG	CTGAA	CTGAT	CTGAC	CTGAG	CTGTA	CTGTT	CTGTC	CTGTG	CTGCA	CTGCT	CTGCC	CTGCG	CTGGA	CTGGT	CTGGC	CTGGG
CCA	CCAAA	CCAAT	CCAAC	CCAAG	CCATA	CCATT	CCATC	CCATG	CCACA	CCACT	CCACC	CCACG	CCAGA	CCAGT	CCAGC	CCAGG
CCT	CCTAA	CCTAT	CCTAC	CCTAG	CCTTA	CCTTT	CCTTC	CCTTG	CCTCA	CCTCT	CCTCC	CCTCG	CCTGA	CCTGT	CCTGC	CCTGG
CCC	CCCAA	CCCAT	CCCAC	CCCAG	CCCTA	CCCTT	CCCTC	CCCTG	CCCCA	CCCCT	CCCCC	CCCCG	CCCGA	CCCGT	CCCGC	CCCGG
CCG	CCGAA	CCGAT	CCGAC	CCGAG	CCGTA	CCGTT	CCGTC	CCGTG	CCGCA	CCGCT	CCGCC	CCGCG	CCGGA	CCGGT	CCGGC	CCGGG
CGA	CGAAA	CGAAT	CGAAC	CGAAG	CGATA	CGATT	CGATC	CGATG	CGACA	CGACT	CGACC	CGACG	CGAGA	CGAGT	CGAGC	CGAGG
CGT	CGTAA	CGTAT	CGTAC	CGTAG	CGTTA	CGTTT	CGTTC	CGTTG	CGTCA	CGTCT	CGTCC	CGTCG	CGTGA	CGTGT	CGTGC	CGTGG
CGC	CGCAA	CGCAT	CGCAC	CGCAG	CGCTA	CGCTT	CGCTC	CGCTG	CGCCA	CGCCT	CGCCC	CGCCG	CGCGA	CGCGT	CGCGC	CGCGG
CGG	CGGAA	CGGAT	CGGAC	CGGAG	CGGTA	CGGTT	CGGTC	CGGTG	CGGCA	CGGCT	CGGCC	CGGCG	CGGGA	CGGGT	CGGGC	CGGGG
GAA	GAAAA	GAAAT	GAAAC	GAAAG	GAATA	GAATT	GAATC	GAATG	GAACA	GAACT	GAACC	GAACG	GAAGA	GAAGT	GAAGC	GAAGG
GAT	GATAA	GATAT	GATAC	GATAG	GATTA	GATTT	GATTC	GATTG	GATCA	GATCT	GATCC	GATCG	GATGA	GATGT	GATGC	GATGG
GAC	GACAA	GACAT	GACAC	GACAG	GACTA	GACTT	GACTC	GACTG	GACCA	GACCT	GACCC	GACCG	GACGA	GACGT	GACGC	GACGG
GAG	GAGAA	GAGAT	GAGAC	GAGAG	GAGTA	GAGTT	GAGTC	GAGTG	GAGCA	GAGCT	GAGCC	GAGCG	GAGGA	GAGGT	GAGGC	GAGGG
GTA	GTAAA	GTAAT	GTAAC	GTAAG	GTATA	GTATT	GTATC	GTATG	GTACA	GTACT	GTACC	GTACG	GTAGA	GTAGT	GTAGC	GTAGG
GTT	GTTAA	GTTAT	GTTAC	GTTAG	GTTTA	GTTTT	GTTTC	GTTTG	GTTCA	GTTCT	GTTCC	GTTCG	GTTGA	GTTGT	GTTGC	GTTGG
GTC	GTCAA	GTCAT	GTCAC	GTCAG	GTCTA	GTCTT	GTCTC	GTCTG	GTCCA	GTCCT	GTCCC	GTCCG	GTCGA	GTCGT	GTCGC	GTCGG
GTG	GTGAA	GTGAT	GTGAC	GTGAG	GTGTA	GTGTT	GTGTC	GTGTG	GTGCA	GTGCT	GTGCC	GTGCG	GTGGA	GTGGT	GTGGC	GTGGG
GCA	GCAAA	GCAAT	GCAAC	GCAAG	GCATA	GCATT	GCATC	GCATG	GCACA	GCACT	GCACC	GCACG	GCAGA	GCAGT	GCAGC	GCAGG
GCT	GCTAA	GCTAT	GCTAC	GCTAG	GCTTA	GCTTT	GCTTC	GCTTG	GCTCA	GCTCT	GCTCC	GCTCG	GCTGA	GCTGT	GCTGC	GCTGG
GCC	GCCAA	GCCAT	GCCAC	GCCAG	GCCTA	GCCTT	GCCTC	GCCTG	GCCCA	GCCCT	GCCCC	GCCCG	GCCGA	GCCGT	GCCGC	GCCGG
GCG	GCGAA	GCGAT	GCGAC	GCGAG	GCGTA	GCGTT	GCGTC	GCGTG	GCGCA	GCGCT	GCGCC	GCGCG	GCGGA	GCGGT	GCGGC	GCGGG
GGA	GGAAA	GGAAT	GGAAC	GGAAG	GGATA	GGATT	GGATC	GGATG	GGACA	GGACT	GGACC	GGACG	GGAGA	GGAGT	GGAGC	GGAGG
GGT	GGTAA	GGTAT	GGTAC	GGTAG	GGTTA	GGTTT	GGTTC	GGTTG	GGTCA	GGTCT	GGTCC	GGTCG	GGTGA	GGTGT	GGTGC	GGTGG
GGC	GGCAA	GGCAT	GGCAC	GGCAG	GGCTA	GGCTT	GGCTC	GGCTG	GGCCA	GGCCT	GGCCC	GGCCG	GGCGA	GGCGT	GGCGC	GGCGG
GGG	GGGAA	GGGAT	GGGAC	GGGAG	GGGTA	GGGTT	GGGTC	GGGTG	GGGCA	GGGCT	GGGCC	GGGCG	GGGGA	GGGGT	GGGGC	GGGGG

Before filtering: read1: overrepresented sequences

Sampling rate: 1 / 20

overrepresented sequence	count (% of bases)	distribution: cycle 1 ~ cycle 151
AAAGATGTGTATAAGAGACA	86282 (0.102329%)	
AAGATGTGTATAAGAGACAG	149980 (0.177874%)	
AAGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	17427 (0.041336%)	
ACACACACACACACACACACACACACACACACACACACAA	2326 (0.005517%)	
ACACACACACACACACACACACACACACACACACACACAC	58007 (0.137591%)	
ACACACACACACACACACACACACACACACACACACACAG	1568 (0.003719%)	
ACACACACACACACACACACACCTGTCTCTTATACACATC	15516 (0.036804%)	
ACACACACACACCTGTCTCTTATACACATCTAGATGTGTA	11379 (0.026991%)	
ACACACACACCTGTCTCTTATACACATCTAGATGTGTATA	1309 (0.003105%)	
ACACACACCTGTCTCTTATACACATCTAGATGTGTATAAG	1667 (0.003954%)	
ACACACCTGTCTCTTATACACATCTAGATGTGTATAAGAG	3488 (0.008273%)	
ACACATCTAGATGTGTATAAGAGACAGCACACACACACAC	157 (0.000372%)	
ACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTG	157 (0.000372%)	
ACACCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	21275 (0.050464%)	

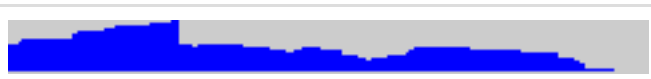
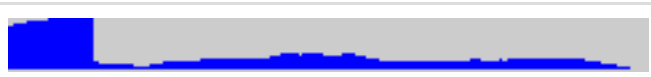
ACAGATGTGTATAAGAGACA	98384 (0.116682%)	
ACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTG	199 (0.000472%)	
ACCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	27626 (0.065528%)	
ACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	31832 (0.075505%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	15738 (0.037330%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	23027 (0.054619%)	
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	12233 (0.029016%)	
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA GAGAGAGAGAGAGAGAGAGAGAGAGAGAG	261 (0.001548%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCGGCTTGAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	4095 (0.036182%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCTTGAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	34267 (0.302770%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCGGCTTGAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	9238 (0.081623%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCGTGAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	7055 (0.062335%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	129027 (1.140032%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAATGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	13776 (0.121719%)	
AGATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGTAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	7570 (0.066886%)	
AGATGTGTATAAGAGACAGCACACACACACACACACACAC	18099 (0.042930%)	
AGATGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTG	16003 (0.037959%)	
AGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	28786 (0.068280%)	
AGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	30967 (0.073453%)	
AGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	29079 (0.068975%)	
ANATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	74 (0.000654%)	
ATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	72 (0.000171%)	
ATACACATCTAGATGTGTATAAGAGACAGCACACACACAC	199 (0.000472%)	
ATACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTG	151 (0.000358%)	
ATCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	20309 (0.048172%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCGTGAAAAGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	4 (0.000035%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCTTGAAAAGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	41 (0.000362%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCTTGAAAATGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	14 (0.000124%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCGGCTTGAAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	10 (0.000088%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCGTGAAAAGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	24 (0.000212%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAAAGGGG		

GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	123 (0.001087%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	152 (0.001343%)	
ATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAATGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	78 (0.000689%)	
ATCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	38484 (0.091283%)	
ATGCCGTCGTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	244 (0.001447%)	
ATGCCGTCTTCGGCGTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	166 (0.000984%)	
ATGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	28028 (0.066482%)	
ATGTGTATAAGAGACAGCACACACACACACACACACACAC	208 (0.000493%)	
ATGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTG	138 (0.000327%)	
ATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	18805 (0.044605%)	
CAAGATGTGTATAAGAGACA	112826 (0.133810%)	
CACACACACACACACACACACACACACACACACACACAAA	1317 (0.003124%)	
CACACACACACACACACACACACACACACACACACACACA	20429 (0.048457%)	
CACACACACACACACACACACCTGTCTCTTATACACATCT	1900 (0.004507%)	
CACACACACACCTGTCTCTTATACACATCTAGATGTGTAT	1449 (0.003437%)	
CACACACACCTGTCTCTTATACACATCTAGATGTGTATAA	1300 (0.003084%)	
CACACACCTGTCTCTTATACACATCTAGATGTGTATAAGA	2705 (0.006416%)	
CACACCTGTCTCTTATACACATCTAGATGTGTATAAGAGA	6115 (0.014505%)	
CACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTGT	163 (0.000387%)	
CACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22230 (0.052729%)	
CAGATGTGTATAAGAGACAG	118433 (0.140460%)	
CATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTGTGT	180 (0.000427%)	
CCAGATGTGTATAAGAGACA	108700 (0.128917%)	
CCCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22605 (0.053619%)	
CCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	44789 (0.106238%)	
CCGTCGTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	94 (0.000557%)	
CCGTCTTCGGCGTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	62 (0.000368%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	833 (0.001976%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	1856 (0.004402%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	2539 (0.006022%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	421 (0.000999%)	
CGTATGCCGTCGTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	7067 (0.041907%)	
CGTATGCCGTCTTCGGCGTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3268 (0.019379%)	

CGTCTTCGGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	8733 (0.051786%)	
CGTCTTCTGCTTGTAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	6466 (0.038343%)	
CTCACACACACACACACACACACACACACACACACACACA	13926 (0.033032%)	
CTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	5915 (0.014030%)	
CTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	23047 (0.054667%)	
CTCTTATACACATCTAGATGTGTATAAGAGACAGCACACA	81 (0.000192%)	
CTCTTATACACATCTAGATGTGTATAAGAGACAGGTGTGT	63 (0.000149%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAC	2673 (0.006340%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAT	3189 (0.007564%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCA	682 (0.001618%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCC	367 (0.000871%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCT	384 (0.000911%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGA	350 (0.000830%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGC	343 (0.000814%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGG	461 (0.001093%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGT	839 (0.001990%)	
CTGTCTCTTATACACATCTC	388845 (0.461165%)	
CTGTCTCTTATACACATCTG	331290 (0.392906%)	
CTGTCTCTTATACACATCTT	344261 (0.408289%)	
CTTATACACATCTAGATGTGTATAAGAGACAGCACACACA	83 (0.000197%)	
CTTATACACATCTAGATGTGTATAAGAGACAGGTGTGTGT	41 (0.000097%)	
GACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	29208 (0.069281%)	
GACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	27175 (0.064458%)	
GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	11165 (0.026483%)	
GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG AGAGAGAGAGAGAGAGAGAGAGAGAGAGA	228 (0.001352%)	
GAGATGTGTATAAGAGACAG	243269 (0.288514%)	
GAGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25076 (0.059480%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCGGCTTGAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	2208 (0.019509%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCGTGAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	6937 (0.061293%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCTTGAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	20573 (0.181775%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCGCGTATGCCGTCTTCTGCTTGAAAATGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	7476 (0.066055%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCGGCTTGAAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	1124 (0.009931%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCGGCTTGAAAAGGGG		

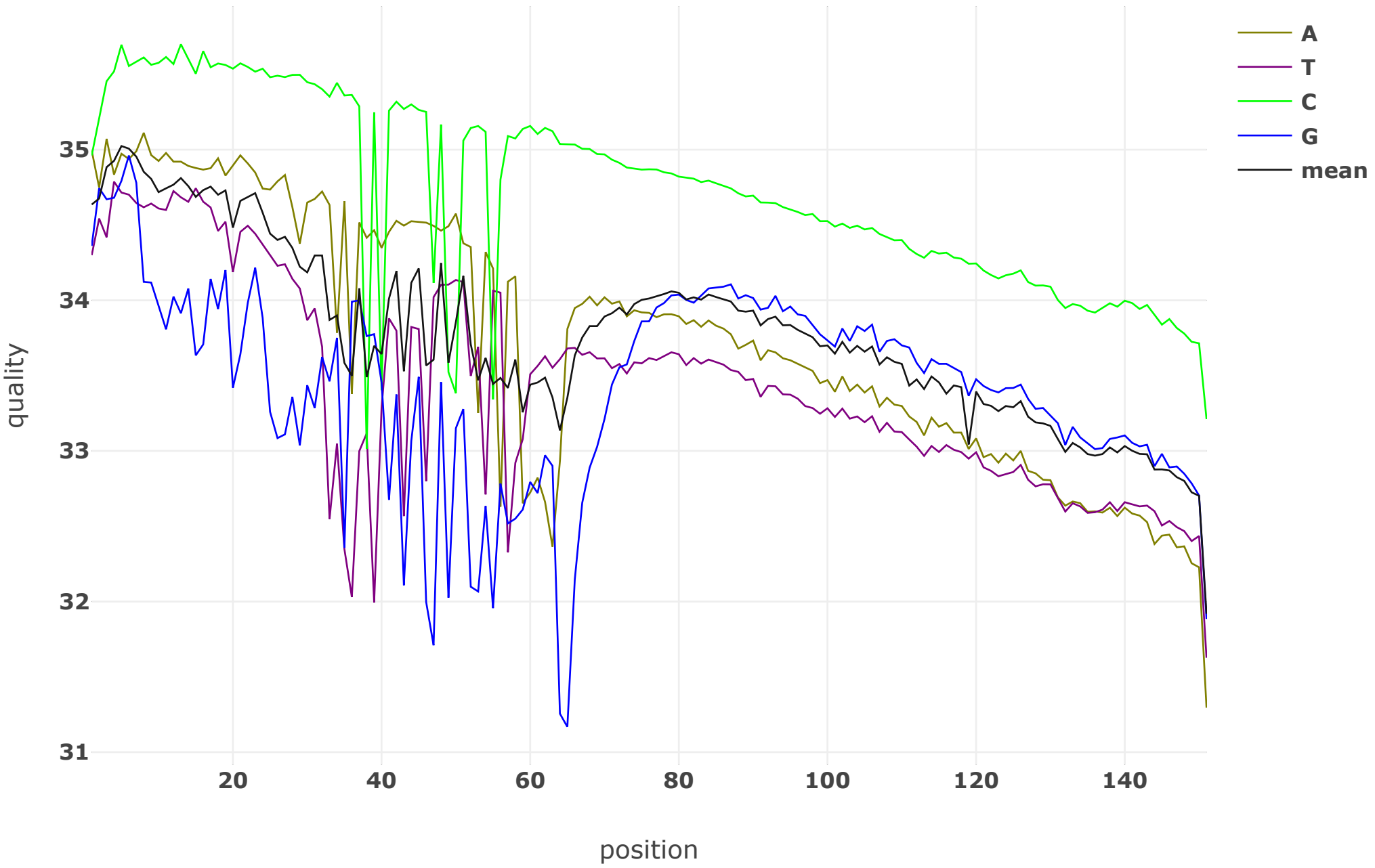
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	5466 (0.048295%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCGTGAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	5335 (0.047138%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAAAGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	20856 (0.184275%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	65436 (0.578167%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGAAAATGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	17067 (0.150797%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTGTAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	4211 (0.037207%)	
GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTTTGCCGTCTTCTGCTTGAAAAGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	2943 (0.026003%)	
GATGTGTATAAGAGACAGCACACACACACACACACACACA	139 (0.000330%)	
GATGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGT	142 (0.000337%)	
GCACACACACACACACACACACACACACACACACACACAC	23470 (0.055670%)	
GCCGTCGTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	37 (0.000219%)	
GCCGTCTTCGGCGTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	11 (0.000065%)	
GCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	7907 (0.018755%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	2749 (0.006521%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	5701 (0.013523%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	8751 (0.020757%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	1450 (0.003439%)	
GGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	26137 (0.061996%)	
GGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	21053 (0.049937%)	
GGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25376 (0.060191%)	
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1185805 (2.812700%)	
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2231 (0.013230%)	
GGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	28075 (0.066593%)	
GGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	10878 (0.025802%)	
GTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTGTG	72 (0.000171%)	
GTATGCCGTCGTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	12 (0.000071%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGCACA	159 (0.000377%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTAT	40 (0.000095%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGT	153 (0.000363%)	
GTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	28088 (0.066624%)	
GTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	16550 (0.039256%)	
GTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	26294 (0.062369%)	

GTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTG	107 (0.000254%)	
GTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGA	2611 (0.006193%)	
GTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGA	2185 (0.005183%)	
GTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAA	3503 (0.008309%)	
GTGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTAT	2425 (0.005752%)	
GTGTGTGTGTGTGTGTGTGTGCTGTCTCTTATACACATCT	1545 (0.003665%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGA	1060 (0.002514%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	27027 (0.064107%)	
TACACACACACACACACACA	102139 (0.121136%)	
TACACATCTAGATGTGTATAAGAGACAGCACACACACACA	177 (0.000420%)	
TACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGT	128 (0.000304%)	
TACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	37765 (0.089578%)	
TATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTGTGT	35 (0.000083%)	
TATACACATCTAGATGTGTATAAGAGACAGCACACACACA	136 (0.000323%)	
TATACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGT	133 (0.000315%)	
TATCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	18576 (0.044062%)	
TCACACACACACACACACACACACACACACACACACACAC	6531 (0.015491%)	
TCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	42264 (0.100249%)	
TCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC	8042 (0.019075%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGCACAC	81 (0.000192%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGTG	61 (0.000145%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	2930 (0.006950%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	5939 (0.014087%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	9041 (0.021445%)	
TCTTATACACATCTAGATGTGTATAAGAGACAGCACACAC	35 (0.000083%)	
TCTTATACACATCTAGATGTGTATAAGAGACAGGTGTGTG	31 (0.000074%)	
TGAGATGTGTATAAGAGACA	141907 (0.168300%)	
TGCCGTCGTCTGCTTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	175 (0.001038%)	
TGCCGTCTTCGGCGTGAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	105 (0.000623%)	
TGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25426 (0.060310%)	
TGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	31303 (0.074250%)	
TGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTGT	47 (0.000111%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAC	293 (0.000695%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAT	122 (0.000289%)	

TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCC	81 (0.000192%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCT	88 (0.000209%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTC	95 (0.000225%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTG	64 (0.000152%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTT	56 (0.000133%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAA	68 (0.000161%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAG	86 (0.000204%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAT	79 (0.000187%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGCA	62 (0.000147%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGCT	95 (0.000225%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGG	101 (0.000240%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGT	88 (0.000209%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTA	137 (0.000325%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTC	78 (0.000185%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTG	261 (0.000619%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTT	99 (0.000235%)	
TGTCTCTTATACACATCTCA	891 (0.001057%)	
TGTCTCTTATACACATCTCT	623 (0.000739%)	
TGTCTCTTATACACATCTTG	655 (0.000777%)	
TGTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	17648 (0.041861%)	
TGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	11772 (0.027923%)	
TGTGTATAAGAGACAGCACACACACACACACACACACACA	36 (0.000085%)	
TGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGT	49 (0.000116%)	
TGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAG	4414 (0.010470%)	
TGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAG	2093 (0.004965%)	
TGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATA	3993 (0.009471%)	
TGTGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTA	13161 (0.031218%)	
TGTGTGTGTGTGTGTGTGTGTGCTGTCTCTTATACACATC	16029 (0.038020%)	
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	39916 (0.094680%)	
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTT	1082 (0.002566%)	
TTATACACATCTAGATGTGTATAAGAGACAGCACACACAC	70 (0.000166%)	
TTATACACATCTAGATGTGTATAAGAGACAGGTGTGTGTG	36 (0.000085%)	
TTCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	20890 (0.049551%)	

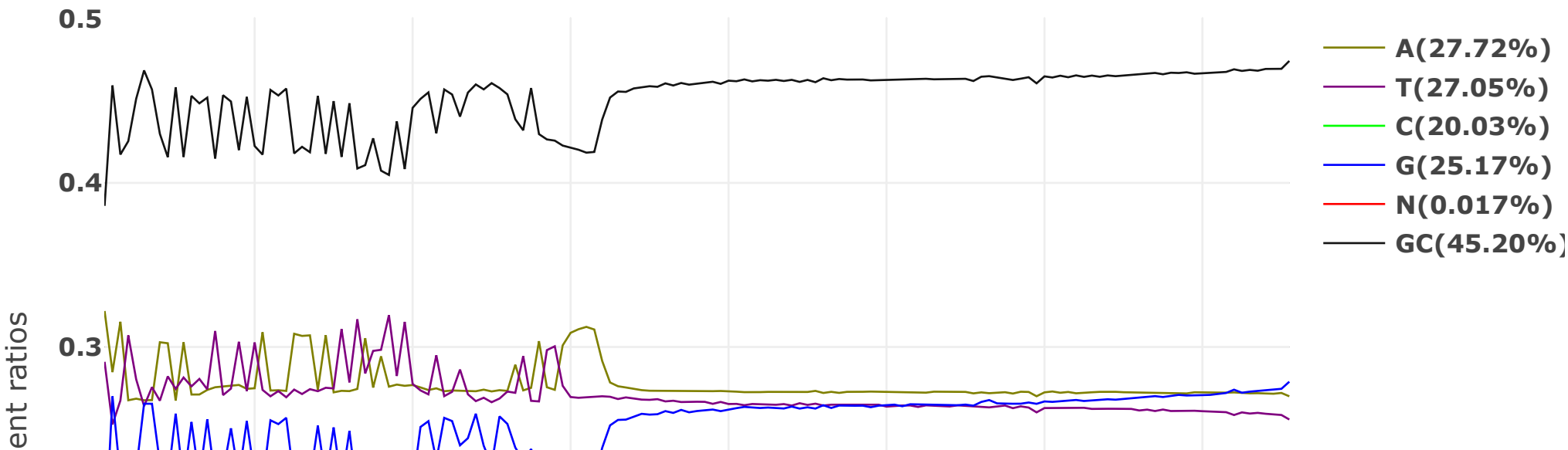
Before filtering: read2: quality

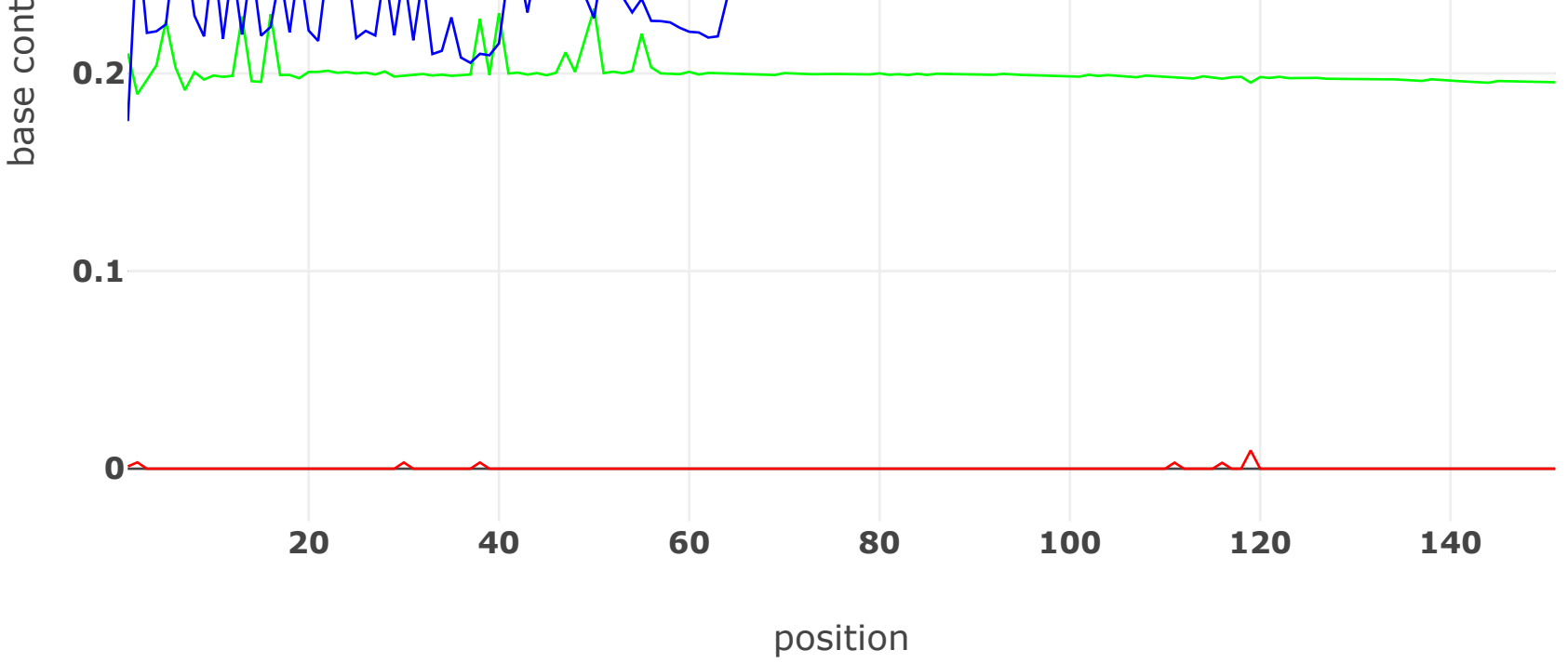
Value of each position will be shown on mouse over.



Before filtering: read2: base contents

Value of each position will be shown on mouse over.





Before filtering: read2: KMER counting

Darker background means larger counts. The count will be shown on mouse over.

	AA	AT	AC	AG	TA	TT	TC	TG	CA	CT	CC	CG	GA	GT	GC	GG
AAA	AAAAA	AAAAT	AAAAC	AAAAG	AAATA	AAATT	AAATC	AAATG	AAACA	AAACT	AAACC	AAACG	AAAGA	AAAGT	AAAGC	AAAGG
AAT	AATAA	AATAT	AATAC	AATAG	AATTA	AATTT	AATTC	AATTG	AATCA	AATCT	AATCC	AATCG	AATGA	AATGT	AATGC	AATGG
AAC	AACAA	AACAT	AACAC	AACAG	AACTA	AACTT	AACTC	AACTG	AACCA	AACCT	AACCC	AACCG	AACGA	AACGT	AACGC	AACGG
AAG	AAGAA	AAGAT	AAGAC	AAGAG	AAGTA	AAGTT	AAGTC	AAGTG	AAGCA	AAGCT	AAGCC	AAGCG	AAGGA	AAGGT	AAGGC	AAGGG
ATA	ATAAA	ATAAT	ATAAC	ATAAG	ATATA	ATATT	ATATC	ATATG	ATACA	ATACT	ATACC	ATACG	ATAGA	ATAGT	ATAGC	ATAGG
ATT	ATTAA	ATTAT	ATTAC	ATTAG	ATTTA	ATTTT	ATTTC	ATTTG	ATTCA	ATTCT	ATTCC	ATTCG	ATTGA	ATTGT	ATTGC	ATTGG
ATC	ATCAA	ATCAT	ATCAC	ATCAG	ATCTA	ATCTT	ATCTC	ATCTG	ATCCA	ATCCT	ATCCC	ATCCG	ATCGA	ATCGT	ATCGC	ATCGG
ATG	ATGAA	ATGAT	ATGAC	ATGAG	ATGTA	ATGTT	ATGTC	ATGTG	ATGCA	ATGCT	ATGCC	ATGCG	ATGGA	ATGGT	ATGGC	ATGGG
ACA	ACAAA	ACAAT	ACAAC	ACAAG	ACATA	ACATT	ACATC	ACATG	ACACA	ACACT	ACACC	ACACG	ACAGA	ACAGT	ACAGC	ACAGG
ACT	ACTAA	ACTAT	ACTAC	ACTAG	ACTTA	ACTTT	ACTTC	ACTTG	ACTCA	ACTCT	ACTCC	ACTCG	ACTGA	ACTGT	ACTGC	ACTGG
ACC	ACCAA	ACCAT	ACCAC	ACCAG	ACCTA	ACCTT	ACCTC	ACCTG	ACCCA	ACCCT	ACCCC	ACCCG	ACCGA	ACCGT	ACCGC	ACCGG
ACG	ACGAA	ACGAT	ACGAC	ACGAG	ACGTA	ACGTT	ACGTC	ACGTG	ACGCA	ACGCT	ACGCC	ACGCG	ACGGA	ACGGT	ACGGC	ACGGG
AGA	AGAAA	AGAAT	AGAAC	AGAAG	AGATA	AGATT	AGATC	AGATG	AGACA	AGACT	AGACC	AGACG	AGAGA	AGAGT	AGAGC	AGAGG
AGT	AGTAA	AGTAT	AGTAC	AGTAG	AGTTA	AGTTT	AGTTC	AGTTG	AGTCA	AGTCT	AGTCC	AGTCG	AGTGA	AGTGT	AGTGC	AGTGG
AGC	AGCAA	AGCAT	AGCAC	AGCAG	AGCTA	AGCTT	AGCTC	AGCTG	AGCCA	AGCCT	AGCCC	AGCCG	AGCGA	AGCGT	AGCGC	AGCGG
AGG	AGGAA	AGGAT	AGGAC	AGGAG	AGGTA	AGGTT	AGGTC	AGGTG	AGGCA	AGGCT	AGGCC	AGGCG	AGGGA	AGGGT	AGGGC	AGGGG
TAA	TAAAA	TAAAT	TAAAC	TAAAG	TAATA	TAATT	TAATC	TAATG	TAACA	TAACT	TAACC	TAACG	TAAGA	TAAGT	TAAGC	TAAGG
TAT	TATAA	TATAT	TATAC	TATAG	TATTA	TATTT	TATTC	TATTG	TATCA	TATCT	TATCC	TATCG	TATGA	TATGT	TATGC	TATGG
TAC	TACAA	TACAT	TACAC	TACAG	TACTA	TACTT	TACTC	TACTG	TACCA	TACCT	TACCC	TACCG	TACGA	TACGT	TACGC	TACGG
TAG	TAGAA	TAGAT	TAGAC	TAGAG	TAGTA	TAGTT	TAGTC	TAGTG	TAGCA	TAGCT	TAGCC	TAGCG	TAGGA	TAGGT	TAGGC	TAGGG
TTA	TTAAA	TTAAT	TTAAC	TTAAG	TTATA	TTATT	TTATC	TTATG	TTACA	TTACT	TTACC	TTACG	TTAGA	TTAGT	TTAGC	TTAGG
TTT	TTTAA	TTTAT	TTTAC	TTTAG	TTTTA	TTTTT	TTTTC	TTTTG	TTTCA	TTTCT	TTTCC	TTTCG	TTTGA	TTTGT	TTTGC	TTTGG
TTC	TTCAA	TTCAT	TTCAC	TTCAG	TTCTA	TTCTT	TTCTC	TTCTG	TTCCA	TTCCT	TTCCC	TTCCG	TTCGA	TTCGT	TTCGC	TTCGG
TTG	TTGAA	TTGAT	TTGAC	TTGAG	TTGTA	TTGTT	TTGTC	TTGTG	TTGCA	TTGCT	TTGCC	TTGCG	TTGGA	TTGGT	TTGGC	TTGGG
TCA	TCAAA	TCAAT	TCAAC	TCAAG	TCATA	TCATT	TCATC	TCATG	TCACA	TCACT	TCACC	TCACG	TCAGA	TCAGT	TCAGC	TCAGG
TCT	TCTAA	TCTAT	TCTAC	TCTAG	TCTTA	TCTTT	TCTTC	TCTTG	TCTCA	TCTCT	TCTCC	TCTCG	TCTGA	TCTGT	TCTGC	TCTGG
TCC	TCCAA	TCCAT	TCCAC	TCCAG	TCCTA	TCCTT	TCCTC	TCCTG	TCCCA	TCCCT	TCCCC	TCCCG	TCCGA	TCCGT	TCCGC	TCCGG
TCG	TCGAA	TCGAT	TCGAC	TCGAG	TCGTA	TCGTT	TCGTC	TCGTG	TCGCA	TCGCT	TCGCC	TCGCG	TCGGA	TCGGT	TCGGC	TCGGG
TGA	TGAAA	TGAAT	TGAAC	TGAAG	TGATA	TGATT	TGATC	TGATG	TGACA	TGACT	TGACC	TGACG	TGAGA	TGAGT	TGAGC	TGAGG
TGT	TGTAA	TGTAT	TGTAC	TGTAG	TGTTA	TGTTT	TGTTC	TGTTG	TGTCA	TGTCT	TGTCC	TGTCG	TGTGA	TGTGT	TGTGC	TGTGG
TGC	TGCAA	TGCAT	TGCAC	TGCAG	TGCTA	TGCTT	TGCTC	TGCTG	TGCCA	TGCCT	TGCCC	TGCCG	TGCGA	TGCGT	TGCGC	TGCGG
TGG	TGGAA	TGGAT	TGGAC	TGGAG	TGGTA	TGGTT	TGGTC	TGGTG	TGGCA	TGGCT	TGGCC	TGGCG	TGGGA	TGGGT	TGGGC	TGGGG
CAA	CAAAA	CAAAT	CAAAC	CAAAG	CAATA	CAATT	CAATC	CAATG	CAACA	CAACT	CAACC	CAACG	CAAGA	CAAGT	CAAGC	CAAGG
CAT	CATAA	CATAT	CATAC	CATAG	CATTA	CATTT	CATTC	CATTG	CATCA	CATCT	CATCC	CATCG	CATGA	CATGT	CATGC	CATGG
CAC	CACAA	CACAT	CACAC	CACAG	CACTA	CACTT	CACTC	CACTG	CACCA	CACCT	CACCC	CACCG	CACGA	CACGT	CACGC	CACGG
CAG	CAGAA	CAGAT	CAGAC	CAGAG	CAGTA	CAGTT	CAGTC	CAGTG	CAGCA	CAGCT	CAGCC	CAGCG	CAGGA	CAGGT	CAGGC	CAGGG
CTA	CTAAA	CTAAT	CTAAC	CTAAG	CTATA	CTATT	CTATC	CTATG	CTACA	CTACT	CTACC	CTACG	CTAGA	CTAGT	CTAGC	CTAGG
CTT	CTTAA	CTTAT	CTTAC	CTTAG	CTTTA	CTTTT	CTTTC	CTTTG	CTTCA	CTTCT	CTTCC	CTTCG	CTTGA	CTTGT	CTTGC	CTTGG
CTC	CTCAA	CTCAT	CTCAC	CTCAG	CTCTA	CTCTT	CTCTC	CTCTG	CTCCA	CTCCT	CTCCC	CTCCG	CTCGA	CTCGT	CTCGC	CTCGG
CTG	CTGAA	CTGAT	CTGAC	CTGAG	CTGTA	CTGTT	CTGTC	CTGTG	CTGCA	CTGCT	CTGCC	CTGCG	CTGGA	CTGGT	CTGGC	CTGGG
CCA	CCAAA	CCAAT	CCAAC	CCAAG	CCATA	CCATT	CCATC	CCATG	CCACA	CCACT	CCACC	CCACG	CCAGA	CCAGT	CCAGC	CCAGG
CCT	CCTAA	CCTAT	CCTAC	CCTAG	CCTTA	CCTTT	CCTTC	CCTTG	CCTCA	CCTCT	CCTCC	CCTCG	CCTGA	CCTGT	CCTGC	CCTGG
CCC	CCCAA	CCCAT	CCCAC	CCCAG	CCCTA	CCCTT	CCCTC	CCCTG	CCCCA	CCCCT	CCCCC	CCCCG	CCCGA	CCCGT	CCCGC	CCCGG
CCG	CCGAA	CCGAT	CCGAC	CCGAG	CCGTA	CCGTT	CCGTC	CCGTG	CCGCA	CCGCT	CCGCC	CCGCG	CCGGA	CCGGT	CCGGC	CCGGG
CGA	CGAAA	CGAAT	CGAAC	CGAAG	CGATA	CGATT	CGATC	CGATG	CGACA	CGACT	CGACC	CGACG	CGAGA	CGAGT	CGAGC	CGAGG
CGT	CGTAA	CGTAT	CGTAC	CGTAG	CGTTA	CGTTT	CGTTC	CGTTG	CGTCA	CGTCT	CGTCC	CGTCG	CGTGA	CGTGT	CGTGC	CGTGG
CGC	CGCAA	CGCAT	CGCAC	CGCAG	CGCTA	CGCTT	CGCTC	CGCTG	CGCCA	CGCCT	CGCCC	CGCCG	CGCGA	CGCGT	CGCGC	CGCGG
CGG	CGGAA	CGGAT	CGGAC	CGGAG	CGGTA	CGGTT	CGGTC	CGGTG	CGGCA	CGGCT	CGGCC	CGGCG	CGGGA	CGGGT	CGGGC	CGGGG
GAA	GAAAA	GAAAT	GAAAC	GAAAG	GAATA	GAATT	GAATC	GAATG	GAACA	GAACT	GAACC	GAACG	GAAGA	GAAGT	GAAGC	GAAGG
GAT	GATAA	GATAT	GATAC	GATAG	GATTA	GATTT	GATTC	GATTG	GATCA	GATCT	GATCC	GATCG	GATGA	GATGT	GATGC	GATGG
GAC	GACAA	GACAT	GACAC	GACAG	GACTA	GACTT	GACTC	GACTG	GACCA	GACCT	GACCC	GACCG	GACGA	GACGT	GACGC	GACGG
GAG	GAGAA	GAGAT	GAGAC	GAGAG	GAGTA	GAGTT	GAGTC	GAGTG	GAGCA	GAGCT	GAGCC	GAGCG	GAGGA	GAGGT	GAGGC	GAGGG
GTA	GTAAA	GTAAT	GTAAC	GTAAG	GTATA	GTATT	GTATC	GTATG	GTACA	GTACT	GTACC	GTACG	GTAGA	GTAGT	GTAGC	GTAGG
GTT	GTTAA	GTTAT	GTTAC	GTTAG	GTTTA	GTTTT	GTTTC	GTTTG	GTTCA	GTTCT	GTTCC	GTTCG	GTTGA	GTTGT	GTTGC	GTTGG
GTC	GTCAA	GTCAT	GTCAC	GTCAG	GTCTA	GTCTT	GTCTC	GTCTG	GTCCA	GTCCT	GTCCC	GTCCG	GTCGA	GTCGT	GTCGC	GTCGG
GTG	GTGAA	GTGAT	GTGAC	GTGAG	GTGTA	GTGTT	GTGTC	GTGTG	GTGCA	GTGCT	GTGCC	GTGCG	GTGGA	GTGGT	GTGGC	GTGGG
GCA	GCAAA	GCAAT	GCAAC	GCAAG	GCATA	GCATT	GCATC	GCATG	GCACA	GCACT	GCACC	GCACG	GCAGA	GCAGT	GCAGC	GCAGG
GCT	GCTAA	GCTAT	GCTAC	GCTAG	GCTTA	GCTTT	GCTTC	GCTTG	GCTCA	GCTCT	GCTCC	GCTCG	GCTGA	GCTGT	GCTGC	GCTGG
GCC	GCCAA	GCCAT	GCCAC	GCCAG	GCCTA	GCCTT	GCCTC	GCCTG	GCCCA	GCCCT	GCCCC	GCCCG	GCCGA	GCCGT	GCCGC	GCCGG
GCG	GCGAA	GCGAT	GCGAC	GCGAG	GCGTA	GCGTT	GCGTC	GCGTG	GCGCA	GCGCT	GCGCC	GCGCG	GCGGA	GCGGT	GCGGC	GCGGG
GGA	GGAAA	GGAAT	GGAAC	GGAAG	GGATA	GGATT	GGATC	GGATG	GGACA	GGACT	GGACC	GGACG	GGAGA	GGAGT	GGAGC	GGAGG
GGT	GGTAA	GGTAT	GGTAC	GGTAG	GGTTA	GGTTT	GGTTC	GGTTG	GGTCA	GGTCT	GGTCC	GGTCG	GGTGA	GGTGT	GGTGC	GGTGG
GGC	GGCAA	GGCAT	GGCAC	GGCAG	GGCTA	GGCTT	GGCTC	GGCTG	GGCCA	GGCCT	GGCCC	GGCCG	GGCGA	GGCGT	GGCGC	GGCGG
GGG	GGGAA	GGGAT	GGGAC	GGGAG	GGGTA	GGGTT	GGGTC	GGGTG	GGGCA	GGGCT	GGGCC	GGGCG	GGGGA	GGGGT	GGGGC	GGGGG

Before filtering: read2: overrepresented sequences

Sampling rate: 1 / 20

overrepresented sequence	count (% of bases)	distribution: cycle 1 ~ cycle 151
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	10218 (0.024237%)	
AAAATGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	26622 (0.063147%)	
AAATGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	5980 (0.014184%)	
AACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25390 (0.060224%)	
AAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGGGGGG	40 (0.000095%)	
AAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGTC	213 (0.000505%)	
AAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGGG	58 (0.000138%)	
AAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGTG	34 (0.000081%)	
AAGATGTGTATAAGAGACAG	346094 (0.410463%)	
AATGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3669 (0.008703%)	
ACACACACACACACACACACACACACACACACACACAA	2132 (0.005057%)	
ACACACACACACACACACACACACACACACACACACAC	50726 (0.120321%)	
ACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACAC	182 (0.001079%)	
ACACACACACACACACACACACACACACACACACACAG	1494 (0.003544%)	
ACACCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	45731 (0.108473%)	
ACCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	23554 (0.055870%)	
ACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	1507 (0.003575%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	20874 (0.049513%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	30250 (0.071752%)	
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	11004 (0.026101%)	
AGAGATGTGTATAAGAGACA	114506 (0.135803%)	
AGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGGGGGGG	18 (0.000043%)	
AGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGTCG	83 (0.000197%)	
AGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGGGG	14 (0.000033%)	
AGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGTGG	11 (0.000026%)	
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTC	105355 (0.249899%)	
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTC	58965 (0.139864%)	
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTC	50938 (0.120824%)	
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTC	36655 (0.086945%)	
AGATGTGTATAAGAGACAGCACACACACACACACACACAC	18849 (0.044709%)	
AGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	24246 (0.057511%)	
AGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGTCGCC	276 (0.000655%)	

AGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGGGGGC	26 (0.000062%)	
AGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	66143 (0.156890%)	
AGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25302 (0.060016%)	
ATACACATCTAGATGTGTATAAGAGACAGCACACACACAC	161 (0.000382%)	
ATACCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	16474 (0.039076%)	
ATCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	17659 (0.041887%)	
ATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGG	687 (0.001630%)	
ATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGG	208 (0.000493%)	
ATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTCGG	221 (0.000524%)	
ATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCGG	58 (0.000138%)	
ATCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	47838 (0.113471%)	
ATGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	23649 (0.056095%)	
ATGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	8667 (0.020558%)	
ATTTCTCGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	23 (0.000136%)	
CACACACACACACACACACACACACACACACACACACACA	17607 (0.041763%)	
CACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA	243 (0.001441%)	
CACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	18648 (0.044233%)	
CAGATGTGTATAAGAGACAG	217594 (0.258064%)	
CCAGATGTGTATAAGAGACA	109741 (0.130151%)	
CCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	58647 (0.139109%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	696 (0.001651%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	1421 (0.003371%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	1900 (0.004507%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	307 (0.000728%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGGG	21 (0.000050%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTG	53 (0.000126%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGG	6 (0.000014%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGTG	17 (0.000040%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTCGGTG	17 (0.000040%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCGGGG	6 (0.000014%)	
CGGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCGGTG	11 (0.000026%)	
CGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	36 (0.000213%)	
CGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	21402 (0.050765%)	
CGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	5188 (0.030765%)	

GGGGGGGGGGGGGGGGGGGGGGGGGGGGG		
CGGGTCATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2178 (0.012915%)	
CGGGTGAGTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	518 (0.003072%)	
CGGGTGATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	4105 (0.024342%)	
CGGGTGATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1249 (0.007406%)	
CGGTGGGGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	13 (0.000077%)	
CGGTGGGGGGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	7 (0.000042%)	
CGGTGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	24 (0.000142%)	
CGGTGGTGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	6 (0.000036%)	
CGGTGGTGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	23 (0.000136%)	
CGGTTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	933 (0.005533%)	
CGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGGGGGCGG	47 (0.000111%)	
CTCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25060 (0.059442%)	
CTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	7388 (0.017524%)	
CTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	19590 (0.046467%)	
CTCTTATACACATCTAGATGTGTATAAGAGACAGCACACA	91 (0.000216%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAA	1289 (0.003057%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAC	3422 (0.008117%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAG	1760 (0.004175%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAT	3993 (0.009471%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCA	465 (0.001103%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCC	262 (0.000621%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCT	274 (0.000650%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGA	255 (0.000605%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGC	328 (0.000778%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGG	313 (0.000742%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGT	593 (0.001407%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGTC	1898 (0.004502%)	
CTGTCTCTTATACACATCTC	355414 (0.421517%)	
CTGTCTCTTATACACATCTG	297770 (0.353152%)	
CTGTCTCTTATACACATCTT	312084 (0.370128%)	
CTTATACACATCTAGATGTGTATAAGAGACAGCACACACA	60 (0.000142%)	
GAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	9637 (0.022859%)	
GAAAGAGTGTATTTCTCGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	612 (0.003629%)	

GGGGGGGGGGGGGGGGGGGGGGGGGGGGG		
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGGGGG	80 (0.000190%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGG	144 (0.000342%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGT	348 (0.000825%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGG	91 (0.000216%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGT	53 (0.000126%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGTGGG	124 (0.000294%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGTGGT	90 (0.000213%)	
GAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCGGTGGG	53 (0.000126%)	
GACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25199 (0.059771%)	
GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	10232 (0.024270%)	
GAGATGTGTATAAGAGACAG	129152 (0.153173%)	
GAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGTCGC	73 (0.000173%)	
GAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGGGGG	10 (0.000024%)	
GATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCG	167 (0.000396%)	
GATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCG	85 (0.000202%)	
GATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTCG	105 (0.000249%)	
GATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCG	53 (0.000126%)	
GATGTGTATAAGAGACAGCACACACACACACACACACACA	150 (0.000356%)	
GCACACACACACACACACACACACACACACACACACACAC	20823 (0.049392%)	
GCCGGGGGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	82 (0.000486%)	
GCCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2420 (0.014350%)	
GCCGGGTCATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	313 (0.001856%)	
GCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	483 (0.002864%)	
GCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	50401 (0.119550%)	
GCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGGTCGCCG	158 (0.000375%)	
GCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGGGGGGCG	11 (0.000026%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	2499 (0.005928%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	4927 (0.011687%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	7663 (0.018176%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	1298 (0.003079%)	
GGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGGGG	66 (0.000157%)	
GGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGTGG	264 (0.000626%)	
GGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGGGG	61 (0.000145%)	

GGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGTGG	90 (0.000213%)	
GGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTCGGTGG	115 (0.000273%)	
GGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCGGGGG	44 (0.000104%)	
GGAAGAGCGTCGTGTAGGGAAAGAGTGTATTTCTCGGTGG	44 (0.000104%)	
GGCCGGGGGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	428 (0.002538%)	
GGCCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2855 (0.016930%)	
GGCCGGGTCATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1224 (0.007258%)	
GGCGGGGGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	115 (0.000682%)	
GGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	630 (0.003736%)	
GGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1172 (0.006950%)	
GGCGGGTGAGTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	87 (0.000516%)	
GGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	503 (0.002983%)	
GGCGGGTGATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	198 (0.001174%)	
GGCGGTTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	199 (0.001180%)	
GGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	18662 (0.044266%)	
GGGCGGGGGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1316 (0.007804%)	
GGGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	979 (0.005805%)	
GGGCGGGTGAGTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	910 (0.005396%)	
GGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2436 (0.014445%)	
GGGCGGGTGATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1434 (0.008504%)	
GGGCGGTTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1952 (0.011575%)	
GGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22736 (0.053929%)	
GGGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	5 (0.000030%)	
GGGGGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	44 (0.000261%)	
GGGGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	753 (0.004465%)	
GGGGGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3 (0.000018%)	
GGGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3 (0.000018%)	
GGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	9 (0.000053%)	
GGGGGCGGGTGATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	7 (0.000042%)	
GGGGGGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	527 (0.003125%)	
GGGGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3129 (0.018555%)	
GGGGGGCGGGTGATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3045 (0.018057%)	
GGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	96 (0.000569%)	

GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	
GGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	36 (0.000213%)
GGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	62 (0.000368%)
GGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	114 (0.000676%)
GGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	172 (0.001020%)
GGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	325 (0.001927%)
GGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	449 (0.002663%)
GGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	540 (0.003202%)
GGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	678 (0.004020%)
GGGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1046 (0.006203%)
GGGGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	951 (0.005639%)
GGGGGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1311 (0.007774%)
GGGGGGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	21 (0.000125%)
GGGGGGGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2238 (0.013271%)
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1106432 (2.624430%)
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	11841 (0.070216%)
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGG	9584 (0.084680%)
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGTGGG	5769 (0.013684%)
GGGGGGGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	4623 (0.027414%)
GGGGGGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	610 (0.003617%)
GGGGGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	772 (0.004578%)
GGGGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1301 (0.007715%)
GGGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1646 (0.009761%)
GGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3184 (0.018881%)
GGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	60 (0.000356%)
GGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3677 (0.021804%)
GGGGGGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3166 (0.018774%)
GGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	42 (0.000249%)
GGGGGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	643 (0.003813%)
GGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3113 (0.018460%)
GGGGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	710 (0.004210%)
GGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	34 (0.000202%)
GGGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	484 (0.002870%)
GGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	

GGGGGGGGGGGGGGGGGGGGGGGGGGGG	2132 (0.012643%)	
GGGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	529 (0.003137%)	
GGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	1605 (0.009518%)	
GGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	348 (0.002064%)	
GGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	1106 (0.006559%)	
GGGGGGGGGGGGGGGGTGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	2713 (0.016088%)	
GGGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	331 (0.001963%)	
GGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	927 (0.005497%)	
GGGGGGGGGGGGGGGTGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	158 (0.000937%)	
GGGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	254 (0.001506%)	
GGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	642 (0.003807%)	
GGGGGGGGGGGGGGTGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	113 (0.000670%)	
GGGGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	164 (0.000973%)	
GGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	395 (0.002342%)	
GGGGGGGGGGGGTGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	82 (0.000486%)	
GGGGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	105 (0.000623%)	
GGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	378 (0.002242%)	
GGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	107 (0.000635%)	
GGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	218 (0.001293%)	
GGGGGGGGGGTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	39 (0.000231%)	
GGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	284 (0.001684%)	
GGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	307 (0.001820%)	
GGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	526 (0.003119%)	
GGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	691 (0.004098%)	
GGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	1224 (0.007258%)	
GGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	1682 (0.009974%)	
GGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	75 (0.000445%)	
GGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	168 (0.000996%)	
GGGTCATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	96 (0.000569%)	
GGGTGAGTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	48 (0.000285%)	
GGGTGATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	117 (0.000694%)	
GGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	300 (0.001779%)	
GGGTGATTTAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGG	252 (0.001494%)	
GGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3500 (0.020755%)	

GGGGGGGGGGGGGGGGGGGGGGGGGGGGG		
GGTGGCCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2174 (0.012892%)	
GGTGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	443 (0.002627%)	
GGTGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	939 (0.005568%)	
GGTGGGGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	13 (0.000077%)	
GGTGGGGGGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	17 (0.000101%)	
GGTGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	62 (0.000368%)	
GGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	46 (0.000273%)	
GGTGGTGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	10 (0.000059%)	
GGTGGTGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	16 (0.000095%)	
GGTTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	156 (0.000925%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGCACA	144 (0.000342%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGT	137 (0.000325%)	
GTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	39143 (0.092846%)	
GTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	14792 (0.035086%)	
GTGGCCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	6 (0.000036%)	
GTGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3 (0.000018%)	
GTGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3 (0.000018%)	
GTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	73 (0.000433%)	
GTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGA	2296 (0.005446%)	
GTGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	4982 (0.029543%)	
GTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGA	1921 (0.004557%)	
GTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAA	2913 (0.006910%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGA	1542 (0.003658%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	36160 (0.085771%)	
GTGTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1753 (0.010395%)	
GTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2433 (0.014428%)	
GTTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3182 (0.018869%)	
TACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	16238 (0.038516%)	
TATACACATCTAGATGTGTATAAGAGACAGCACACACACA	103 (0.000244%)	
TCACACACACACACACACACACACACACACACACACACAC	17047 (0.040435%)	
TCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	30866 (0.073213%)	
TCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGG	10 (0.000024%)	
TCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTCGGT	18 (0.000043%)	

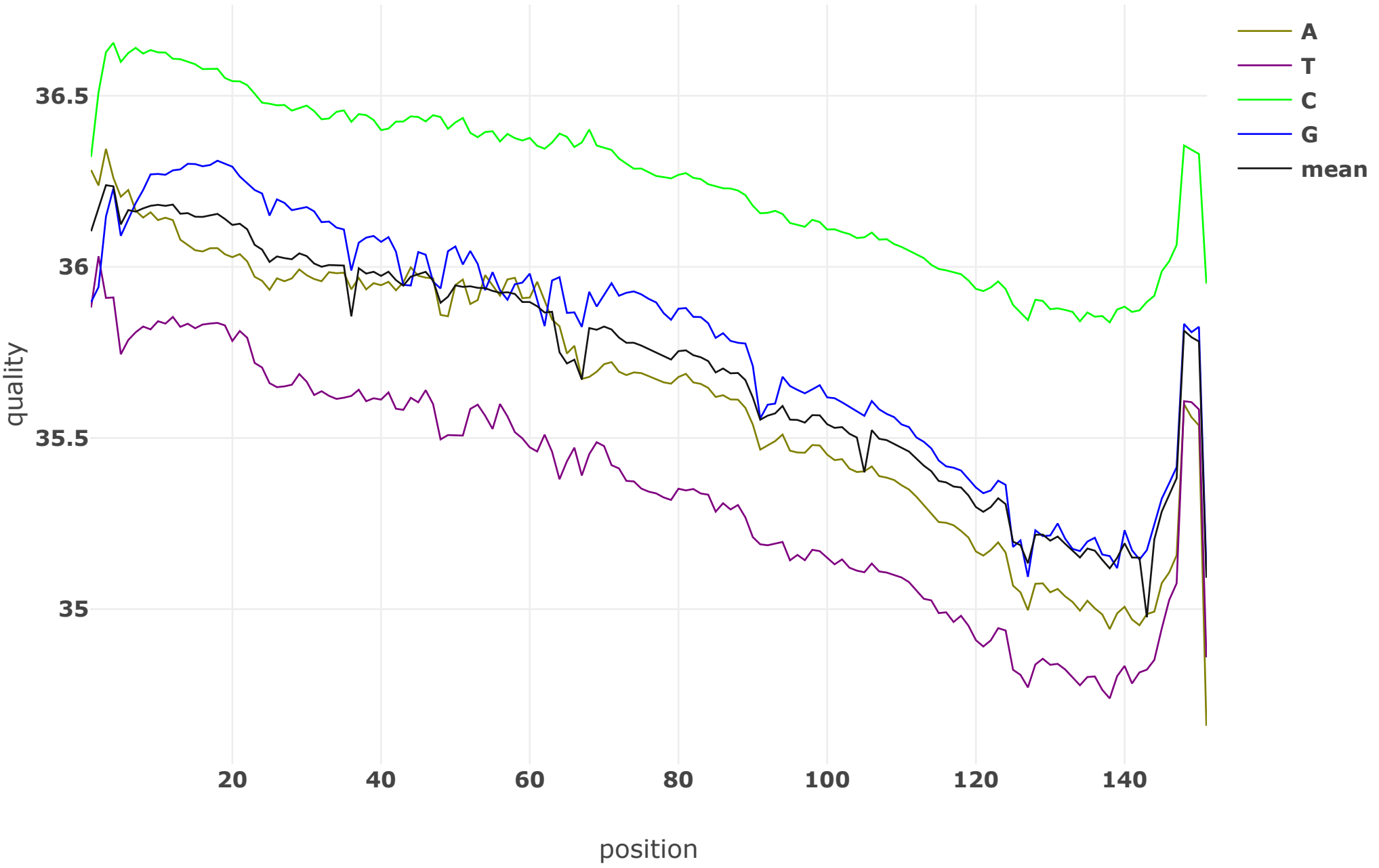
		
TCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGTTCTCGGT	6 (0.000014%)	
TCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTCGGT	6 (0.000014%)	
TCGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	310 (0.001838%)	
TCGGTGGGGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	39 (0.000231%)	
TCGGTGGGGGGCGGGTCATTAAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	585 (0.003469%)	
TCGGTGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	165 (0.000978%)	
TCGGTGGTGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	44 (0.000261%)	
TCGGTGGTGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	93 (0.000551%)	
TCTCGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	649 (0.003849%)	
TCTCGGTGGGGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	731 (0.004335%)	
TCTCGGTGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	462 (0.002740%)	
TCTCGGTGGTGGCCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	500 (0.002965%)	
TCTCGGTGGTGGGCGGGTCATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1051 (0.006232%)	
TCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC	10129 (0.024026%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGCACAC	74 (0.000176%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGTG	37 (0.000088%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	181 (0.000429%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	403 (0.000956%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	583 (0.001383%)	
TCTTATACACATCTAGATGTGTATAAGAGACAGCACACAC	49 (0.000116%)	
TGAGATGTGTATAAGAGACA	143977 (0.170755%)	
TGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	27467 (0.065151%)	
TGGGGGGGGGGGGGGGGGGGGGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1513 (0.008972%)	
TGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	114 (0.000676%)	
TGGGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	3075 (0.018235%)	
TGGGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2741 (0.016254%)	
TGGGGGGGGGGGGGGGGGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2130 (0.012631%)	
TGGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	4342 (0.025748%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAC	299 (0.000709%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAT	99 (0.000235%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCC	101 (0.000240%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCT	98 (0.000232%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTC	142 (0.000337%)	

		
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAG	127 (0.000301%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGCA	77 (0.000183%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGA	70 (0.000166%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGC	109 (0.000259%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGG	83 (0.000197%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGT	109 (0.000259%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTA	143 (0.000339%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTC	123 (0.000292%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTG	345 (0.000818%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTT	117 (0.000278%)	
TGTCTCTTATACACATCTCA	1066 (0.001264%)	
TGTCTCTTATACACATCTCT	911 (0.001080%)	
TGTCTCTTATACACATCTGG	710 (0.000842%)	
TGTCTCTTATACACATCTGT	756 (0.000897%)	
TGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	10101 (0.023959%)	
TGTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	5635 (0.033415%)	
TGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAG	3726 (0.008838%)	
TGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAG	1650 (0.003914%)	
TGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATA	21153 (0.050174%)	
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	51013 (0.121002%)	
TGTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2182 (0.012939%)	
TTATACACATCTAGATGTGTATAAGAGACAGCACACACAC	59 (0.000140%)	
TTCTCGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	715 (0.004240%)	
TTCTCGGTGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	1073 (0.006363%)	
TTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	16181 (0.038381%)	
TTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	28 (0.000166%)	
TTTCTCGGGGGGGGGCGGGTGATTAAAAAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	109 (0.000646%)	
TTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	13 (0.000077%)	
TTTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	2100 (0.012453%)	
TTTTTGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG GGGGGGGGGGGGGGGGGGGGGGGGGGGGG	5536 (0.032828%)	

After filtering

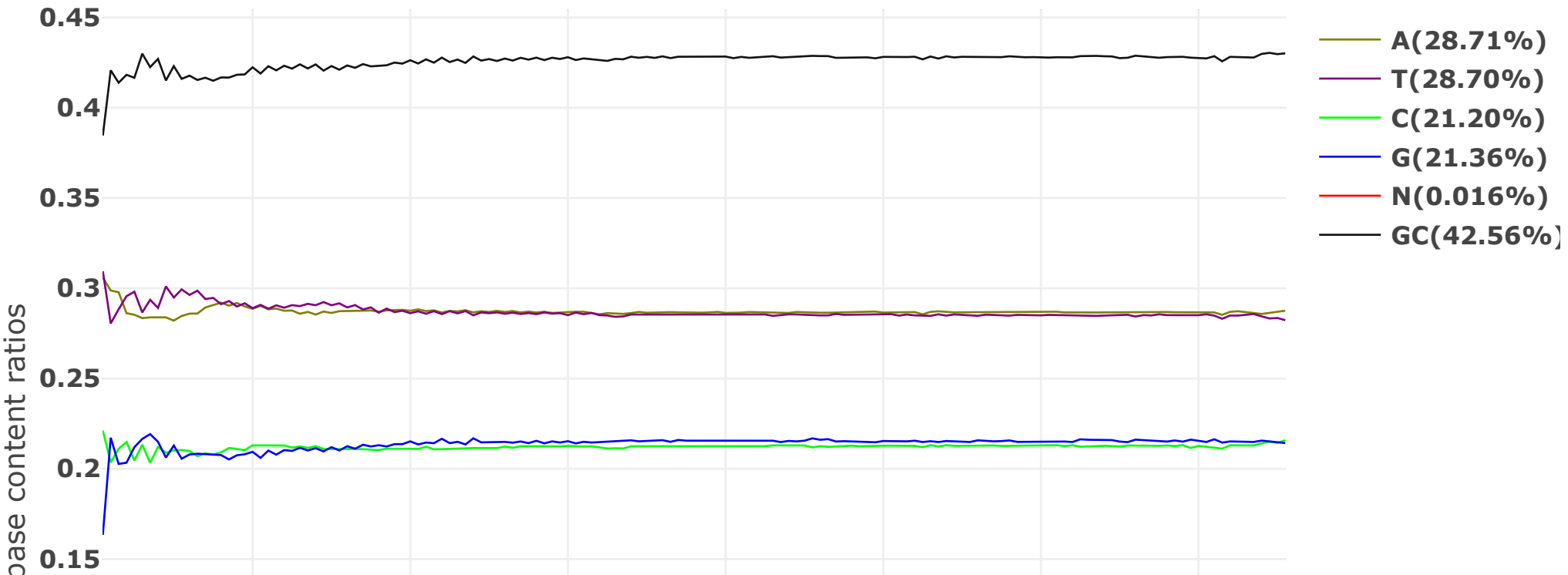
After filtering: read1: quality

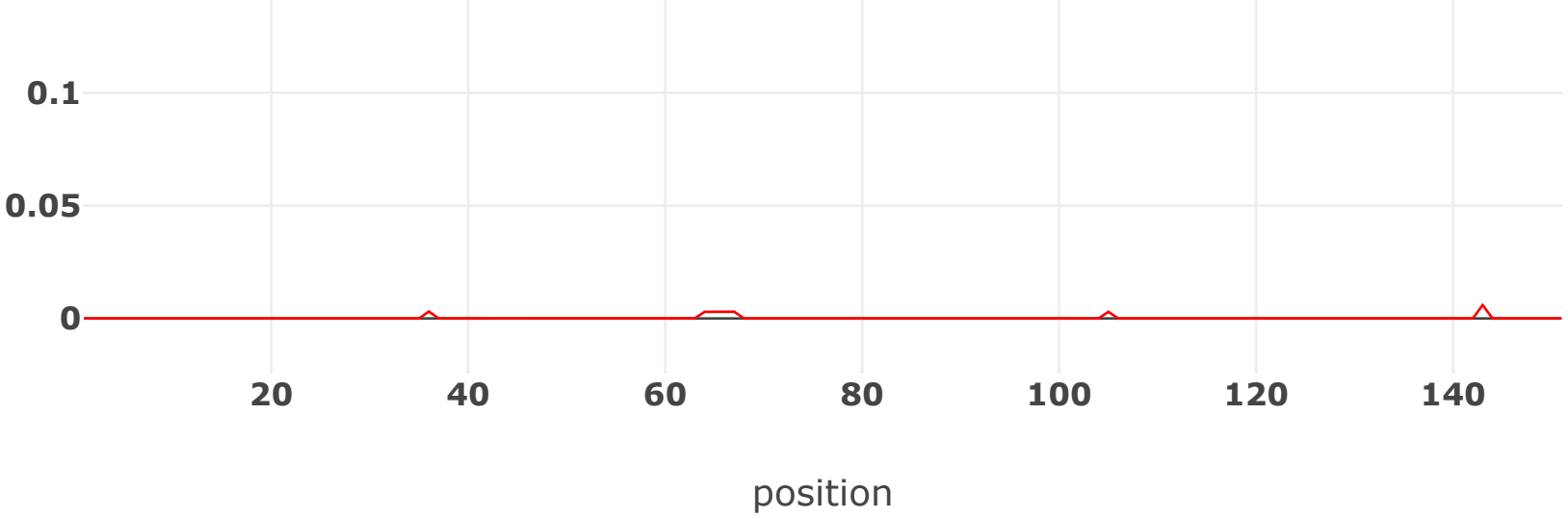
Value of each position will be shown on mouse over.



After filtering: read1: base contents

Value of each position will be shown on mouse over.





After filtering: read1: KMER counting

Darker background means larger counts. The count will be shown on mouse over.

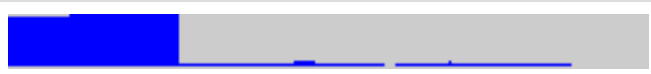
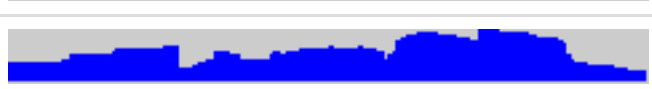
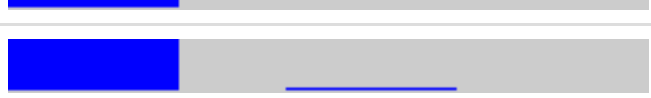
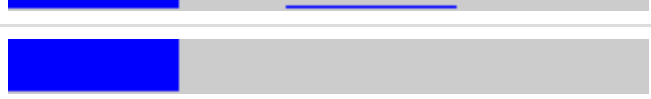
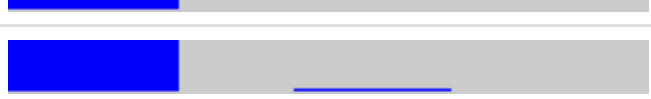
	AA	AT	AC	AG	TA	TT	TC	TG	CA	CT	CC	CG	GA	GT	GC	GG
AAA	AAAAA	AAAAT	AAAAC	AAAAG	AAATA	AAATT	AAATC	AAATG	AAACA	AAACT	AAACC	AAACG	AAAGA	AAAGT	AAAGC	AAAGG
AAT	AATAA	AATAT	AATAC	AATAG	AATTA	AATTT	AATTC	AATTG	AATCA	AATCT	AATCC	AATCG	AATGA	AATGT	AATGC	AATGG
AAC	AACAA	AACAT	AACAC	AACAG	AACTA	AACTT	AACTC	AACTG	AACCA	AACCT	AACCC	AACCG	AACGA	AACGT	AACGC	AACGG
AAG	AAGAA	AAGAT	AAGAC	AAGAG	AAGTA	AAGTT	AAGTC	AAGTG	AAGCA	AAGCT	AAGCC	AAGCG	AAGGA	AAGGT	AAGGC	AAGGG
ATA	ATAAA	ATAAT	ATAAC	ATAAG	ATATA	ATATT	ATATC	ATATG	ATACA	ATACT	ATACC	ATACG	ATAGA	ATAGT	ATAGC	ATAGG
ATT	ATTAA	ATTAT	ATTAC	ATTAG	ATTTA	ATTTT	ATTTC	ATTTG	ATTCA	ATTCT	ATTCC	ATTCG	ATTGA	ATTGT	ATTGC	ATTGG
ATC	ATCAA	ATCAT	ATCAC	ATCAG	ATCTA	ATCTT	ATCTC	ATCTG	ATCCA	ATCCT	ATCCC	ATCCG	ATCGA	ATCGT	ATCGC	ATCGG
ATG	ATGAA	ATGAT	ATGAC	ATGAG	ATGTA	ATGTT	ATGTC	ATGTG	ATGCA	ATGCT	ATGCC	ATGCG	ATGGA	ATGGT	ATGGC	ATGGG
ACA	ACAAA	ACAAT	ACAAC	ACAAG	ACATA	ACATT	ACATC	ACATG	ACACA	ACACT	ACACC	ACACG	ACAGA	ACAGT	ACAGC	ACAGG
ACT	ACTAA	ACTAT	ACTAC	ACTAG	ACTTA	ACTTT	ACTTC	ACTTG	ACTCA	ACTCT	ACTCC	ACTCG	ACTGA	ACTGT	ACTGC	ACTGG
ACC	ACCAA	ACCAT	ACCAC	ACCAG	ACCTA	ACCTT	ACCTC	ACCTG	ACCCA	ACCCT	ACCCC	ACCCG	ACCGA	ACCGT	ACCGC	ACCGG
ACG	ACGAA	ACGAT	ACGAC	ACGAG	ACGTA	ACGTT	ACGTC	ACGTG	ACGCA	ACGCT	ACGCC	ACGCG	ACGGA	ACGGT	ACGGC	ACGGG
AGA	AGAAA	AGAAT	AGAAC	AGAAG	AGATA	AGATT	AGATC	AGATG	AGACA	AGACT	AGACC	AGACG	AGAGA	AGAGT	AGAGC	AGAGG
AGT	AGTAA	AGTAT	AGTAC	AGTAG	AGTTA	AGTTT	AGTTC	AGTTG	AGTCA	AGTCT	AGTCC	AGTCG	AGTGA	AGTGT	AGTGC	AGTGG
AGC	AGCAA	AGCAT	AGCAC	AGCAG	AGCTA	AGCTT	AGCTC	AGCTG	AGCCA	AGCCT	AGCCC	AGCCG	AGCGA	AGCGT	AGCGC	AGCGG
AGG	AGGAA	AGGAT	AGGAC	AGGAG	AGGTA	AGGTT	AGGTC	AGGTG	AGGCA	AGGCT	AGGCC	AGGCG	AGGGA	AGGGT	AGGGC	AGGGG
TAA	TAAAA	TAAAT	TAAAC	TAAAG	TAATA	TAATT	TAATC	TAATG	TAACA	TAACT	TAACC	TAACG	TAAGA	TAAGT	TAAGC	TAAGG
TAT	TATAA	TATAT	TATAC	TATAG	TATTA	TATTT	TATTC	TATTG	TATCA	TATCT	TATCC	TATCG	TATGA	TATGT	TATGC	TATGG
TAC	TACAA	TACAT	TACAC	TACAG	TACTA	TACTT	TACTC	TACTG	TACCA	TACCT	TACCC	TACCG	TACGA	TACGT	TACGC	TACGG
TAG	TAGAA	TAGAT	TAGAC	TAGAG	TAGTA	TAGTT	TAGTC	TAGTG	TAGCA	TAGCT	TAGCC	TAGCG	TAGGA	TAGGT	TAGGC	TAGGG
TTA	TTAAA	TTAAT	TTAAC	TTAAG	TTATA	TTATT	TTATC	TTATG	TTACA	TTACT	TTACC	TTACG	TTAGA	TTAGT	TTAGC	TTAGG
TTT	TTTAA	TTTAT	TTTAC	TTTAG	TTTTA	TTTTT	TTTTC	TTTTG	TTTCA	TTTCT	TTTCC	TTTCG	TTTGA	TTTGT	TTTGC	TTTGG
TTC	TTCAA	TTCAT	TTCAC	TTCAG	TTCTA	TTCTT	TTCTC	TTCTG	TTCCA	TTCCT	TTCCC	TTCCG	TTCGA	TTCGT	TTCGC	TTCGG
TTG	TTGAA	TTGAT	TTGAC	TTGAG	TTGTA	TTGTT	TTGTC	TTGTG	TTGCA	TTGCT	TTGCC	TTGCG	TTGGA	TTGGT	TTGGC	TTGGG
TCA	TCAAA	TCAAT	TCAAC	TCAAG	TCATA	TCATT	TCATC	TCATG	TCACA	TCACT	TCACC	TCACG	TCAGA	TCAGT	TCAGC	TCAGG
TCT	TCTAA	TCTAT	TCTAC	TCTAG	TCTTA	TCTTT	TCTTC	TCTTG	TCTCA	TCTCT	TCTCC	TCTCG	TCTGA	TCTGT	TCTGC	TCTGG
TCC	TCCAA	TCCAT	TCCAC	TCCAG	TCCTA	TCCTT	TCCTC	TCCTG	TCCCA	TCCCT	TCCCC	TCCCG	TCCGA	TCCGT	TCCGC	TCCGG
TCG	TCGAA	TCGAT	TCGAC	TCGAG	TCGTA	TCGTT	TCGTC	TCGTG	TCGCA	TCGCT	TCGCC	TCGCG	TCGGA	TCGGT	TCGGC	TCGGG
TGA	TGAAA	TGAAT	TGAAC	TGAAG	TGATA	TGATT	TGATC	TGATG	TGACA	TGACT	TGACC	TGACG	TGAGA	TGAGT	TGAGC	TGAGG
TGT	TGTAA	TGTAT	TGTAC	TGTAG	TGTTA	TGTTT	TGTTC	TGTTG	TGTCA	TGTCT	TGTCC	TGTCG	TGTGA	TGTGT	TGTGC	TGTGG
TGC	TGCAA	TGCAT	TGCAC	TGCAG	TGCTA	TGCTT	TGCTC	TGCTG	TGCCA	TGCCT	TGCCC	TGCCG	TGCGA	TGCGT	TGCGC	TGCGG
TGG	TGGAA	TGGAT	TGGAC	TGGAG	TGGTA	TGGTT	TGGTC	TGGTG	TGGCA	TGGCT	TGGCC	TGGCG	TGGGA	TGGGT	TGGGC	TGGGG
CAA	CAAAA	CAAAT	CAAAC	CAAAG	CAATA	CAATT	CAATC	CAATG	CAACA	CAACT	CAACC	CAACG	CAAGA	CAAGT	CAAGC	CAAGG
CAT	CATAA	CATAT	CATAC	CATAG	CATTA	CATTT	CATTC	CATTG	CATCA	CATCT	CATCC	CATCG	CATGA	CATGT	CATGC	CATGG
CAC	CACAA	CACAT	CACAC	CACAG	CACTA	CACTT	CACTC	CACTG	CACCA	CACCT	CACCC	CACCG	CACGA	CACGT	CACGC	CACGG
CAG	CAGAA	CAGAT	CAGAC	CAGAG	CAGTA	CAGTT	CAGTC	CAGTG	CAGCA	CAGCT	CAGCC	CAGCG	CAGGA	CAGGT	CAGGC	CAGGG
CTA	CTAAA	CTAAT	CTAAC	CTAAG	CTATA	CTATT	CTATC	CTATG	CTACA	CTACT	CTACC	CTACG	CTAGA	CTAGT	CTAGC	CTAGG
CTT	CTTAA	CTTAT	CTTAC	CTTAG	CTTTA	CTTTT	CTTTC	CTTTG	CTTCA	CTTCT	CTTCC	CTTCG	CTTGA	CTTGT	CTTGC	CTTGG
CTC	CTCAA	CTCAT	CTCAC	CTCAG	CTCTA	CTCTT	CTCTC	CTCTG	CTCCA	CTCCT	CTCCC	CTCCG	CTCGA	CTCGT	CTCGC	CTCGG
CTG	CTGAA	CTGAT	CTGAC	CTGAG	CTGTA	CTGTT	CTGTC	CTGTG	CTGCA	CTGCT	CTGCC	CTGCG	CTGGA	CTGGT	CTGGC	CTGGG
CCA	CCAAA	CCAAT	CCAAC	CCAAG	CCATA	CCATT	CCATC	CCATG	CCACA	CCACT	CCACC	CCACG	CCAGA	CCAGT	CCAGC	CCAGG
CCT	CCTAA	CCTAT	CCTAC	CCTAG	CCTTA	CCTTT	CCTTC	CCTTG	CCTCA	CCTCT	CCTCC	CCTCG	CCTGA	CCTGT	CCTGC	CCTGG
CCC	CCCAA	CCCAT	CCCAC	CCCAG	CCCTA	CCCTT	CCCTC	CCCTG	CCCCA	CCCCT	CCCCC	CCCCG	CCCGA	CCCGT	CCCGC	CCCGG
CCG	CCGAA	CCGAT	CCGAC	CCGAG	CCGTA	CCGTT	CCGTC	CCGTG	CCGCA	CCGCT	CCGCC	CCGCG	CCGGA	CCGGT	CCGGC	CCGGG
CGA	CGAAA	CGAAT	CGAAC	CGAAG	CGATA	CGATT	CGATC	CGATG	CGACA	CGACT	CGACC	CGACG	CGAGA	CGAGT	CGAGC	CGAGG
CGT	CGTAA	CGTAT	CGTAC	CGTAG	CGTTA	CGTTT	CGTTC	CGTTG	CGTCA	CGTCT	CGTCC	CGTCG	CGTGA	CGTGT	CGTGC	CGTGG
CGC	CGCAA	CGCAT	CGCAC	CGCAG	CGCTA	CGCTT	CGCTC	CGCTG	CGCCA	CGCCT	CGCCC	CGCCG	CGCGA	CGCGT	CGCGC	CGCGG
CGG	CGGAA	CGGAT	CGGAC	CGGAG	CGGTA	CGGTT	CGGTC	CGGTG	CGGCA	CGGCT	CGGCC	CGGCG	CGGGA	CGGGT	CGGGC	CGGGG
GAA	GAAAA	GAAAT	GAAAC	GAAAG	GAATA	GAATT	GAATC	GAATG	GAACA	GAACT	GAACC	GAACG	GAAGA	GAAGT	GAAGC	GAAGG
GAT	GATAA	GATAT	GATAC	GATAG	GATTA	GATTT	GATTC	GATTG	GATCA	GATCT	GATCC	GATCG	GATGA	GATGT	GATGC	GATGG
GAC	GACAA	GACAT	GACAC	GACAG	GACTA	GACTT	GACTC	GACTG	GACCA	GACCT	GACCC	GACCG	GACGA	GACGT	GACGC	GACGG
GAG	GAGAA	GAGAT	GAGAC	GAGAG	GAGTA	GAGTT	GAGTC	GAGTG	GAGCA	GAGCT	GAGCC	GAGCG	GAGGA	GAGGT	GAGGC	GAGGG
GTA	GTAAA	GTAAT	GTAAC	GTAAG	GTATA	GTATT	GTATC	GTATG	GTACA	GTACT	GTACC	GTACG	GTAGA	GTAGT	GTAGC	GTAGG
GTT	GTTAA	GTTAT	GTTAC	GTTAG	GTTTA	GTTTT	GTTTC	GTTTG	GTTCA	GTTCT	GTTCC	GTTCG	GTTGA	GTTGT	GTTGC	GTTGG
GTC	GTCAA	GTCAT	GTCAC	GTCAG	GTCTA	GTCTT	GTCTC	GTCTG	GTCCA	GTCCT	GTCCC	GTCCG	GTCGA	GTCGT	GTCGC	GTCGG
GTG	GTGAA	GTGAT	GTGAC	GTGAG	GTGTA	GTGTT	GTGTC	GTGTG	GTGCA	GTGCT	GTGCC	GTGCG	GTGGA	GTGGT	GTGGC	GTGGG
GCA	GCAAA	GCAAT	GCAAC	GCAAG	GCATA	GCATT	GCATC	GCATG	GCACA	GCACT	GCACC	GCACG	GCAGA	GCAGT	GCAGC	GCAGG
GCT	GCTAA	GCTAT	GCTAC	GCTAG	GCTTA	GCTTT	GCTTC	GCTTG	GCTCA	GCTCT	GCTCC	GCTCG	GCTGA	GCTGT	GCTGC	GCTGG
GCC	GCCAA	GCCAT	GCCAC	GCCAG	GCCTA	GCCTT	GCCTC	GCCTG	GCCCA	GCCCT	GCCCC	GCCCG	GCCGA	GCCGT	GCCGC	GCCGG
GCG	GCGAA	GCGAT	GCGAC	GCGAG	GCGTA	GCGTT	GCGTC	GCGTG	GCGCA	GCGCT	GCGCC	GCGCG	GCGGA	GCGGT	GCGGC	GCGGG
GGA	GGAAA	GGAAT	GGAAC	GGAAG	GGATA	GGATT	GGATC	GGATG	GGACA	GGACT	GGACC	GGACG	GGAGA	GGAGT	GGAGC	GGAGG
GGT	GGTAA	GGTAT	GGTAC	GGTAG	GGTTA	GGTTT	GGTTC	GGTTG	GGTCA	GGTCT	GGTCC	GGTCG	GGTGA	GGTGT	GGTGC	GGTGG
GGC	GGCAA	GGCAT	GGCAC	GGCAG	GGCTA	GGCTT	GGCTC	GGCTG	GGCCA	GGCCT	GGCCC	GGCCG	GGCGA	GGCGT	GGCGC	GGCGG
GGG	GGGAA	GGGAT	GGGAC	GGGAG	GGGTA	GGGTT	GGGTC	GGGTG	GGGCA	GGGCT	GGGCC	GGGCG	GGGGA	GGGGT	GGGGC	GGGGG

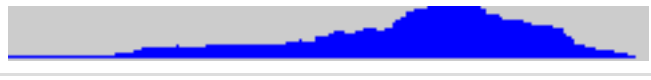
After filtering: read1: overrepresented sequences

Sampling rate: 1 / 20

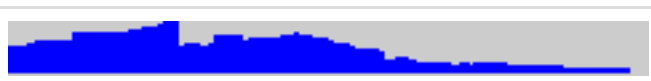
overrepresented sequence	count (% of bases)	distribution: cycle 1 ~ cycle 151
AAAGATGTGTATAAGAGACA	74607 (0.118983%)	

AAGATGTGTATAAGAGACAG	127676 (0.203618%)	
AAGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	15812 (0.050434%)	
ACACACACACACACACACACACACACACACACACACAA	985 (0.003142%)	
ACACACACACACACACACACACACACACACACACACAC	35268 (0.112491%)	
ACACACACACACACACACACACACACACACACACACAG	1025 (0.003269%)	
ACACACACACACACACACACACCTGTCTCTTATACACATC	12660 (0.040380%)	
ACACACACACACCTGTCTCTTATACACATCTAGATGTGTA	9596 (0.030607%)	
ACACACACACCTGTCTCTTATACACATCTAGATGTGTATA	1066 (0.003400%)	
ACACACACCTGTCTCTTATACACATCTAGATGTGTATAAG	1385 (0.004418%)	
ACACACCTGTCTCTTATACACATCTAGATGTGTATAAGAG	2881 (0.009189%)	
ACACATCTAGATGTGTATAAGAGACAGCACACACACACAC	90 (0.000287%)	
ACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTG	84 (0.000268%)	
ACACCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	18667 (0.059540%)	
ACAGATGTGTATAAGAGACA	82746 (0.131963%)	
ACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTGTG	131 (0.000418%)	
ACCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	23934 (0.076340%)	
ACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	27677 (0.088279%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	13568 (0.043277%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	20601 (0.065709%)	
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	7704 (0.024573%)	
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	198 (0.001579%)	
AGATGTGTATAAGAGACAGCACACACACACACACACACAC	12713 (0.040549%)	
AGATGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTG	11170 (0.035628%)	
AGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25391 (0.080987%)	
AGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	27806 (0.088690%)	
AGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25745 (0.082116%)	
ATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTGTG	33 (0.000105%)	
ATACACATCTAGATGTGTATAAGAGACAGCACACACACAC	106 (0.000338%)	
ATACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTG	62 (0.000198%)	
ATCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	17825 (0.056855%)	
ATCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	34047 (0.108596%)	
ATGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	24897 (0.079412%)	
ATGTGTATAAGAGACAGCACACACACACACACACACAC	93 (0.000297%)	

ATGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTG	70 (0.000223%)	
ATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	12830 (0.040923%)	
CAAGATGTGTATAAGAGACA	93357 (0.148886%)	
CACACACACACACACACACACACACACACACACACAAA	549 (0.001751%)	
CACACACACACACACACACACACACACACACACACACA	10934 (0.034875%)	
CACACACACACACACACACCTGTCTCTTATACACATCT	1550 (0.004944%)	
CACACACACACCTGTCTCTTATACACATCTAGATGTGTAT	1243 (0.003965%)	
CACACACACCTGTCTCTTATACACATCTAGATGTGTATAA	973 (0.003103%)	
CACACACCTGTCTCTTATACACATCTAGATGTGTATAAGA	2264 (0.007221%)	
CACACCTGTCTCTTATACACATCTAGATGTGTATAAGAGA	5322 (0.016975%)	
CACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTGT	107 (0.000341%)	
CACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	19190 (0.061208%)	
CAGATGTGTATAAGAGACAG	100940 (0.160979%)	
CATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGTGTGT	136 (0.000434%)	
CCAGATGTGTATAAGAGACA	92686 (0.147816%)	
CCCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	19727 (0.062921%)	
CCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	39315 (0.125399%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	717 (0.002287%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	1580 (0.005040%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	2231 (0.007116%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	340 (0.001084%)	
CTCACACACACACACACACACACACACACACACACACACA	8885 (0.028340%)	
CTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	2731 (0.008711%)	
CTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	20355 (0.064924%)	
CTCTTATACACATCTAGATGTGTATAAGAGACAGCACACA	50 (0.000159%)	
CTCTTATACACATCTAGATGTGTATAAGAGACAGGTGTGT	40 (0.000128%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAC	2393 (0.007633%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAT	2816 (0.008982%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCA	517 (0.001649%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCC	305 (0.000973%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCT	368 (0.001174%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGA	297 (0.000947%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGC	315 (0.001005%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGG		

	399 (0.001273%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGT	685 (0.002185%)	
CTGTCTCTTATACACATCTC	328033 (0.523147%)	
CTGTCTCTTATACACATCTG	284417 (0.453588%)	
CTGTCTCTTATACACATCTT	297700 (0.474772%)	
CTTATACACATCTAGATGTGTATAAGAGACAGCACACACA	38 (0.000121%)	
CTTATACACATCTAGATGTGTATAAGAGACAGGTGTGTGT	31 (0.000099%)	
GACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	25552 (0.081501%)	
GACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	23644 (0.075415%)	
GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	7522 (0.023992%)	
GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	187 (0.001491%)	
GAGATGTGTATAAGAGACAG	205762 (0.328149%)	
GAGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	21446 (0.068404%)	
GATGTGTATAAGAGACAGCACACACACACACACACACACA	93 (0.000297%)	
GATGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGT	120 (0.000383%)	
GCACACACACACACACACACACACACACACACACACACAC	14496 (0.046236%)	
GCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	6903 (0.022018%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	2376 (0.007578%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	4773 (0.015224%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	7441 (0.023734%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	1251 (0.003990%)	
GGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22985 (0.073313%)	
GGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	18209 (0.058079%)	
GGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22132 (0.070592%)	
GGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	6891 (0.021980%)	
GTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTG	28 (0.000089%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGCACA	88 (0.000281%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTAT	32 (0.000102%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGT	109 (0.000348%)	
GTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	25434 (0.081124%)	
GTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	14445 (0.046074%)	
GTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTG	58 (0.000185%)	
GTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGA	2280 (0.007272%)	
GTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGA	1817 (0.005796%)	

GTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAA	2920 (0.009314%)	
GTGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTAT	2054 (0.006551%)	
GTGTGTGTGTGTGTGTGTGCTGTCTCTTATACACATCT	1293 (0.004124%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGA	562 (0.001793%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	17947 (0.057244%)	
TACACACACACACACACACA	67853 (0.108212%)	
TACACATCTAGATGTGTATAAGAGACAGCACACACACACA	117 (0.000373%)	
TACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGTGT	84 (0.000268%)	
TACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	33619 (0.107231%)	
TATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGTGT	14 (0.000045%)	
TATACACATCTAGATGTGTATAAGAGACAGCACACACACA	53 (0.000169%)	
TATACACATCTAGATGTGTATAAGAGACAGGTGTGTGTGT	47 (0.000150%)	
TATCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	16280 (0.051927%)	
TCACACACACACACACACACACACACACACACACACAC	4154 (0.013250%)	
TCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	36679 (0.116991%)	
TCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC	3442 (0.010979%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGCACAC	50 (0.000159%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGTG	46 (0.000147%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	2648 (0.008446%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	5226 (0.016669%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	8085 (0.025788%)	
TCTTATACACATCTAGATGTGTATAAGAGACAGCACACAC	23 (0.000073%)	
TCTTATACACATCTAGATGTGTATAAGAGACAGGTGTGTG	26 (0.000083%)	
TGAGATGTGTATAAGAGACA	121328 (0.193494%)	
TGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22560 (0.071957%)	
TGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	27592 (0.088007%)	
TGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGT	24 (0.000077%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAC	171 (0.000545%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAT	99 (0.000316%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCC	66 (0.000211%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCT	69 (0.000220%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTC	53 (0.000169%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTG	56 (0.000179%)	

TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTT	49 (0.000156%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAA	57 (0.000182%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAG	73 (0.000233%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAT	71 (0.000226%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGCA	45 (0.000144%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGCT	90 (0.000287%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGG	69 (0.000220%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGT	99 (0.000316%)	
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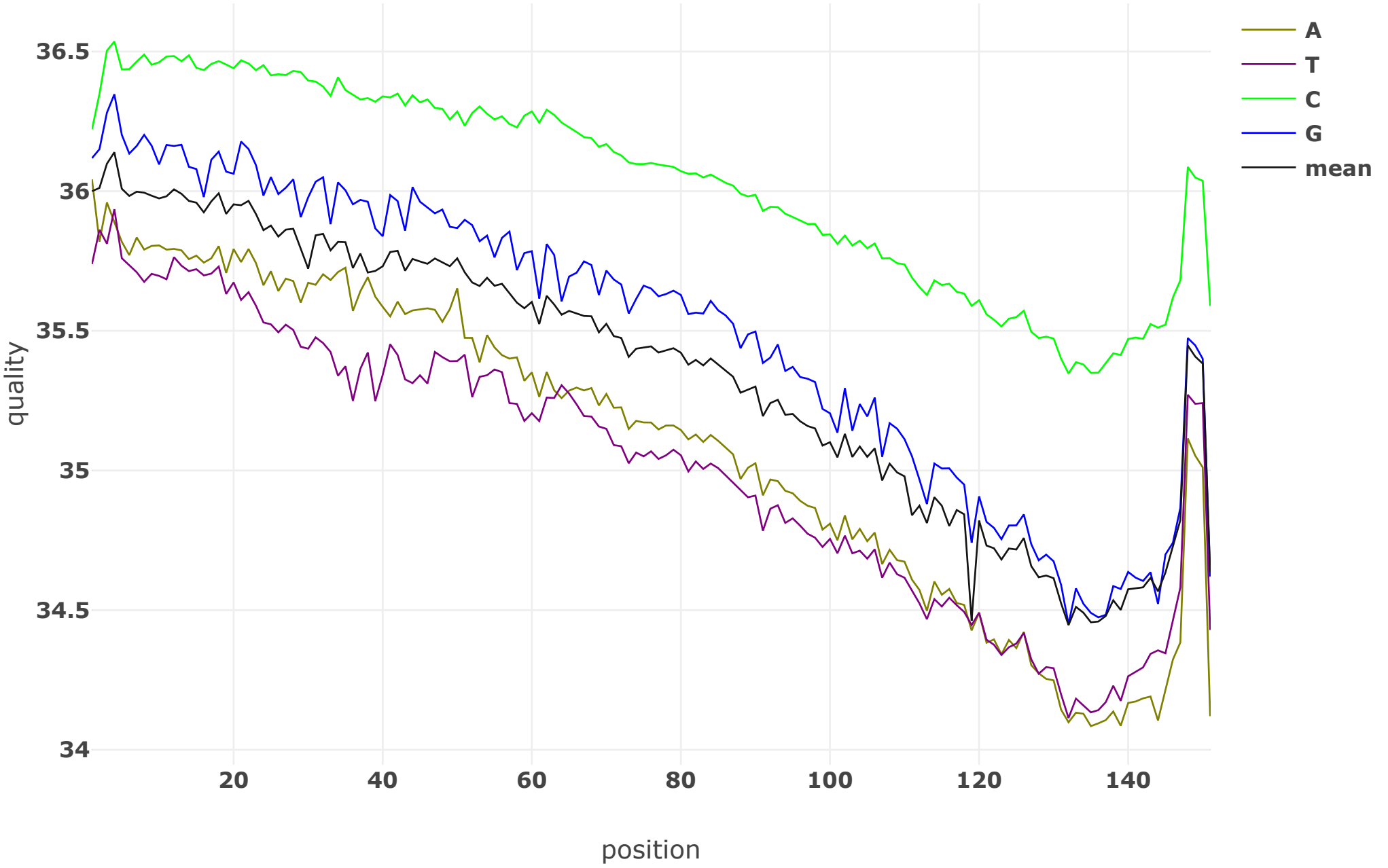
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTC	64 (0.000204%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTG	204 (0.000651%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTT	79 (0.000252%)	
TGTCTCTTATACACATCTCA	608 (0.000970%)	
TGTCTCTTATACACATCTCT	405 (0.000646%)	
TGTCTCTTATACACATCTTG	483 (0.000770%)	
TGTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	15684 (0.050026%)	
TGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	10349 (0.033009%)	
TGTGTATAAGAGACAGCACACACACACACACACACACACA	19 (0.000061%)	
TGTGTATAAGAGACAGGTGTGTGTGTGTGTGTGTGTGTGT	30 (0.000096%)	
TGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAG	3722 (0.011872%)	
TGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAG	1701 (0.005426%)	
TGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATA	3536 (0.011278%)	
TGTGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTA	11238 (0.035845%)	
TGTGTGTGTGTGTGTGTGTGTGCTGTCTCTTATACACATC	13302 (0.042428%)	
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	25650 (0.081813%)	
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTT	558 (0.001780%)	
TTATACACATCTAGATGTGTATAAGAGACAGCACACACAC	39 (0.000124%)	
TTATACACATCTAGATGTGTATAAGAGACAGGTGTGTGTG	35 (0.000112%)	
TTCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	18438 (0.058810%)	

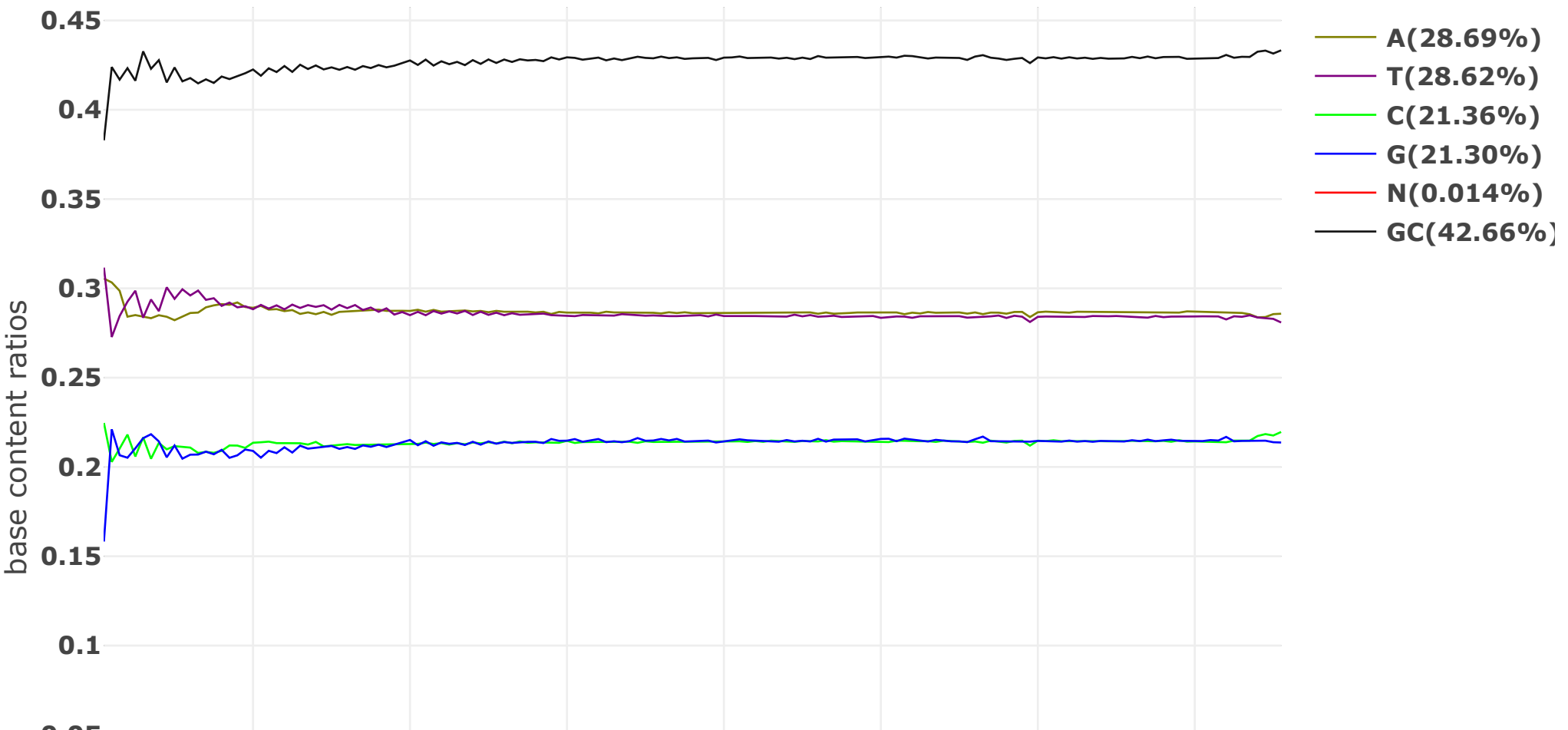
After filtering: read2: quality

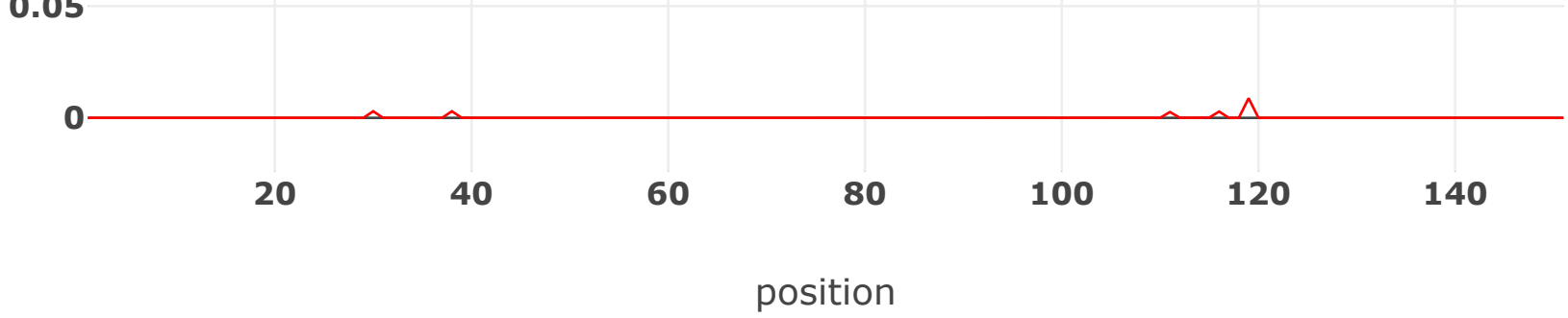
Value of each position will be shown on mouse over.



After filtering: read2: base contents

Value of each position will be shown on mouse over.





After filtering: read2: KMER counting

Darker background means larger counts. The count will be shown on mouse over.

	AA	AT	AC	AG	TA	TT	TC	TG	CA	CT	CC	CG	GA	GT	GC	GG
AAA	AAAAA	AAAAT	AAAAC	AAAAG	AAATA	AAATT	AAATC	AAATG	AAACA	AAACT	AAACC	AAACG	AAAGA	AAAGT	AAAGC	AAAGG
AAT	AATAA	AATAT	AATAC	AATAG	AATTA	AATTT	AATTC	AATTG	AATCA	AATCT	AATCC	AATCG	AATGA	AATGT	AATGC	AATGG
AAC	AACAA	AACAT	AACAC	AACAG	AACTA	AACTT	AACTC	AACTG	AACCA	AACCT	AACCC	AACCG	AACGA	AACGT	AACGC	AACGG
AAG	AAGAA	AAGAT	AAGAC	AAGAG	AAGTA	AAGTT	AAGTC	AAGTG	AAGCA	AAGCT	AAGCC	AAGCG	AAGGA	AAGGT	AAGGC	AAGGG
ATA	ATAAA	ATAAT	ATAAC	ATAAG	ATATA	ATATT	ATATC	ATATG	ATACA	ATACT	ATACC	ATACG	ATAGA	ATAGT	ATAGC	ATAGG
ATT	ATTAA	ATTAT	ATTAC	ATTAG	ATTTA	ATTTT	ATTTC	ATTTG	ATTCA	ATTCT	ATTCC	ATTCG	ATTGA	ATTGT	ATTGC	ATTGG
ATC	ATCAA	ATCAT	ATCAC	ATCAG	ATCTA	ATCTT	ATCTC	ATCTG	ATCCA	ATCCT	ATCCC	ATCCG	ATCGA	ATCGT	ATCGC	ATCGG
ATG	ATGAA	ATGAT	ATGAC	ATGAG	ATGTA	ATGTT	ATGTC	ATGTG	ATGCA	ATGCT	ATGCC	ATGCG	ATGGA	ATGGT	ATGGC	ATGGG
ACA	ACAAA	ACAAT	ACAAC	ACAAG	ACATA	ACATT	ACATC	ACATG	ACACA	ACACT	ACACC	ACACG	ACAGA	ACAGT	ACAGC	ACAGG
ACT	ACTAA	ACTAT	ACTAC	ACTAG	ACTTA	ACTTT	ACTTC	ACTTG	ACTCA	ACTCT	ACTCC	ACTCG	ACTGA	ACTGT	ACTGC	ACTGG
ACC	ACCAA	ACCAT	ACCAC	ACCAG	ACCTA	ACCTT	ACCTC	ACCTG	ACCCA	ACCCT	ACCCC	ACCCG	ACCGA	ACCGT	ACCGC	ACCGG
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AGC	AGCAA	AGCAT	AGCAC	AGCAG	AGCTA	AGCTT	AGCTC	AGCTG	AGCCA	AGCCT	AGCCC	AGCCG	AGCGA	AGCGT	AGCGC	AGCGG
AGG	AGGAA	AGGAT	AGGAC	AGGAG	AGGTA	AGGTT	AGGTC	AGGTG	AGGCA	AGGCT	AGGCC	AGGCG	AGGGA	AGGGT	AGGGC	AGGGG
TAA	TAAAA	TAAAT	TAAAC	TAAAG	TAATA	TAATT	TAATC	TAATG	TAACA	TAACT	TAACC	TAACG	TAAGA	TAAGT	TAAGC	TAAGG
TAT	TATAA	TATAT	TATAC	TATAG	TATTA	TATTT	TATTC	TATTG	TATCA	TATCT	TATCC	TATCG	TATGA	TATGT	TATGC	TATGG
TAC	TACAA	TACAT	TACAC	TACAG	TACTA	TACTT	TACTC	TACTG	TACCA	TACCT	TACCC	TACCG	TACGA	TACGT	TACGC	TACGG
TAG	TAGAA	TAGAT	TAGAC	TAGAG	TAGTA	TAGTT	TAGTC	TAGTG	TAGCA	TAGCT	TAGCC	TAGCG	TAGGA	TAGGT	TAGGC	TAGGG
TTA	TTAAA	TTAAT	TTAAC	TTAAG	TTATA	TTATT	TTATC	TTATG	TTACA	TTACT	TTACC	TTACG	TTAGA	TTAGT	TTAGC	TTAGG
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CAA	CAAAA	CAAAT	CAAAC	CAAAG	CAATA	CAATT	CAATC	CAATG	CAACA	CAACT	CAACC	CAACG	CAAGA	CAAGT	CAAGC	CAAGG
CAT	CATAA	CATAT	CATAC	CATAG	CATTA	CATTT	CATTC	CATTG	CATCA	CATCT	CATCC	CATCG	CATGA	CATGT	CATGC	CATGG
CAC	CACAA	CACAT	CACAC	CACAG	CACTA	CACTT	CACTC	CACTG	CACCA	CACCT	CACCC	CACCG	CACGA	CACGT	CACGC	CACGG
CAG	CAGAA	CAGAT	CAGAC	CAGAG	CAGTA	CAGTT	CAGTC	CAGTG	CAGCA	CAGCT	CAGCC	CAGCG	CAGGA	CAGGT	CAGGC	CAGGG
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GAA	GAAAA	GAAAT	GAAAC	GAAAG	GAATA	GAATT	GAATC	GAATG	GAACA	GAACT	GAACC	GAACG	GAAGA	GAAGT	GAAGC	GAAGG
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GCT	GCTAA	GCTAT	GCTAC	GCTAG	GCTTA	GCTTT	GCTTC	GCTTG	GCTCA	GCTCT	GCTCC	GCTCG	GCTGA	GCTGT	GCTGC	GCTGG
GCC	GCCAA	GCCAT	GCCAC	GCCAG	GCCTA	GCCTT	GCCTC	GCCTG	GCCCA	GCCCT	GCCCC	GCCCG	GCCGA	GCCGT	GCCGC	GCCGG
GCG	GCGAA	GCGAT	GCGAC	GCGAG	GCGTA	GCGTT	GCGTC	GCGTG	GCGCA	GCGCT	GCGCC	GCGCG	GCGGA	GCGGT	GCGGC	GCGGG
GGA	GGAAA	GGAAT	GGAAC	GGAAG	GGATA	GGATT	GGATC	GGATG	GGACA	GGACT	GGACC	GGACG	GGAGA	GGAGT	GGAGC	GGAGG
GGT	GGTAA	GGTAT	GGTAC	GGTAG	GGTTA	GGTTT	GGTTC	GGTTG	GGTCA	GGTCT	GGTCC	GGTCG	GGTGA	GGTGT	GGTGC	GGTGG
GGC	GGCAA	GGCAT	GGCAC	GGCAG	GGCTA	GGCTT	GGCTC	GGCTG	GGCCA	GGCCT	GGCCC	GGCCG	GGCGA	GGCGT	GGCGC	GGCGG
GGG	GGGAA	GGGAT	GGGAC	GGGAG	GGGTA	GGGTT	GGGTC	GGGTG	GGGCA	GGGCT	GGGCC	GGGCG	GGGGA	GGGGT	GGGGC	GGGGG

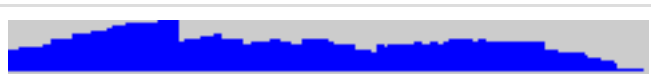
After filtering: read2: overrepresented sequences

Sampling rate: 1 / 20

overrepresented sequence	count (% of bases)	distribution: cycle 1 ~ cycle 151
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	35 (0.000112%)	
AACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22746 (0.072705%)	
AAGATGTGTATAAGAGACAG	302696 (0.483769%)	

ACACACACACACACACACACACACACACACACACACACAA	1073 (0.003430%)	
ACACACACACACACACACACACACACACACACACACACAC	33137 (0.105919%)	
ACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACAC	149 (0.001191%)	
ACACACACACACACACACACACACACACACACACACACAG	888 (0.002838%)	
ACACCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	40743 (0.130231%)	
ACCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	20836 (0.066600%)	
ACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	1292 (0.004130%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	18298 (0.058488%)	
ACTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	27074 (0.086539%)	
AGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG	6127 (0.019584%)	
AGAGATGTGTATAAGAGACA	99966 (0.159766%)	
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTAGATCTC	10 (0.000032%)	
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGTATATCTC	7 (0.000022%)	
AGATGTGTATAAGAGACAGCACACACACACACACACACAC	14160 (0.045261%)	
AGCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	21882 (0.069944%)	
AGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	59356 (0.189725%)	
AGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22267 (0.071174%)	
ATACACATCTAGATGTGTATAAGAGACAGCACACACACAC	88 (0.000281%)	
ATACCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	14525 (0.046428%)	
ATCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	15588 (0.049825%)	
ATCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	42705 (0.136502%)	
ATGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	20903 (0.066814%)	
CACACACACACACACACACACACACACACACACACACACA	10031 (0.032063%)	
CACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACACA	211 (0.001686%)	
CACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	16635 (0.053172%)	
CAGATGTGTATAAGAGACAG	191128 (0.305461%)	
CCAGATGTGTATAAGAGACA	96603 (0.154391%)	
CCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	52172 (0.166763%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	574 (0.001835%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	1203 (0.003845%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	1677 (0.005360%)	
CCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	294 (0.000940%)	
CTCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	21835 (0.069793%)	
CTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	4560 (0.014576%)	

CTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	17749 (0.056733%)	
CTCTTATACACATCTAGATGTGTATAAGAGACAGCACACA	48 (0.000153%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAA	1175 (0.003756%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAC	3094 (0.009890%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAG	1509 (0.004823%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGAT	3592 (0.011481%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCA	416 (0.001330%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCC	220 (0.000703%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCT	233 (0.000745%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGA	243 (0.000777%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGC	296 (0.000946%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGG	268 (0.000857%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGT	536 (0.001713%)	
CTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGTC	1591 (0.005085%)	
CTGTCTCTTATACACATCTC	314903 (0.503278%)	
CTGTCTCTTATACACATCTG	261585 (0.418065%)	
CTGTCTCTTATACACATCTT	277770 (0.443932%)	
CTTATACACATCTAGATGTGTATAAGAGACAGCACACACA	36 (0.000115%)	
GACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	22614 (0.072283%)	
GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGA	5593 (0.017877%)	
GAGATGTGTATAAGAGACAG	110034 (0.175856%)	
GATGTGTATAAGAGACAGCACACACACACACACACACACA	121 (0.000387%)	
GCACACACACACACACACACACACACACACACACACACAC	14317 (0.045763%)	
GCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	45039 (0.143963%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	2195 (0.007016%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	4447 (0.014214%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	6627 (0.021183%)	
GCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGT	1131 (0.003615%)	
GGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	16756 (0.053559%)	
GGGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	20301 (0.064890%)	
GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	8 (0.000026%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGCACA	73 (0.000233%)	
GTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGT	79 (0.000253%)	

GTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	34708 (0.110941%)	
GTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	13003 (0.041563%)	
GTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGA	1904 (0.006086%)	
GTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGA	1542 (0.004929%)	
GTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAA	2500 (0.007991%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGA	767 (0.002452%)	
GTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT	21880 (0.069937%)	
TACCTGTCTCTTATACACATCTAGATGTGTATAAGAGACA	14342 (0.045843%)	
TATACACATCTAGATGTGTATAAGAGACAGCACACACACA	58 (0.000185%)	
TCACACACACACACACACACACACACACACACACACACAC	11703 (0.037407%)	
TCCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	27686 (0.088495%)	
TCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTC	6206 (0.019837%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGCACAC	52 (0.000166%)	
TCTCTTATACACATCTAGATGTGTATAAGAGACAGGTGTG	19 (0.000061%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGA	156 (0.000499%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGC	304 (0.000972%)	
TCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAGG	523 (0.001672%)	
TCTTATACACATCTAGATGTGTATAAGAGACAGCACACAC	31 (0.000099%)	
TGAGATGTGTATAAGAGACA	124681 (0.199265%)	
TGCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	24362 (0.077871%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAC	230 (0.000735%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCAT	95 (0.000304%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCC	95 (0.000304%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCCT	80 (0.000256%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGCTC	112 (0.000358%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGAG	84 (0.000268%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGCA	68 (0.000217%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGA	68 (0.000217%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGC	79 (0.000253%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGG	90 (0.000288%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGGT	94 (0.000300%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTA	131 (0.000419%)	

TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTC	108 (0.000345%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTG	257 (0.000821%)	
TGTCTCTTATACACATCTAGATGTGTATAAGAGACAGGTT	101 (0.000323%)	
TGTCTCTTATACACATCTCA	738 (0.001179%)	
TGTCTCTTATACACATCTCT	631 (0.001008%)	
TGTCTCTTATACACATCTGG	533 (0.000852%)	
TGTCTCTTATACACATCTGT	551 (0.000881%)	
TGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAGAC	8808 (0.028154%)	
TGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAGAG	3193 (0.010206%)	
TGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATAAG	1418 (0.004532%)	
TGTGTGTGTGCTGTCTCTTATACACATCTAGATGTGTATA	18512 (0.059172%)	
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	29851 (0.095416%)	
TTATACACATCTAGATGTGTATAAGAGACAGCACACACAC	43 (0.000137%)	
TTCTGTCTCTTATACACATCTAGATGTGTATAAGAGACAG	14159 (0.045258%)	

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fastp -i 10-12kb_S17_L002_R1_001.fastq.gz -I 10-12kb_S17_L002_R2_001.fastq.gz -o MP10k_F.trimmed.fq.gz -O MP10k_R.trimmed.fq.gz
-n 5 -q 30 -u 30 --length_required=100 --low_complexity_filter --complexity_threshold=20 --cut_by_quality3 --cut_by_quality5 --
cut_window_size=4 --cut_mean_quality=30 --trim_poly_g --poly_g_min_len=10 --overrepresentation_analysis --json=MP10k.json --
html=MP10k.html --report_title=MP10k --thread=8

fastp 0.19.4, at 2018-10-07 00:09:26
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