Supplemental Data. Zhang et al. (2008). ***The Plant Cell***

Epigenetic Modification of Centromeric Chromatin: Hypomethylation of DNA Sequences in the CENH3-Associated Chromatin in *Arabidopsis thaliana* and Maize

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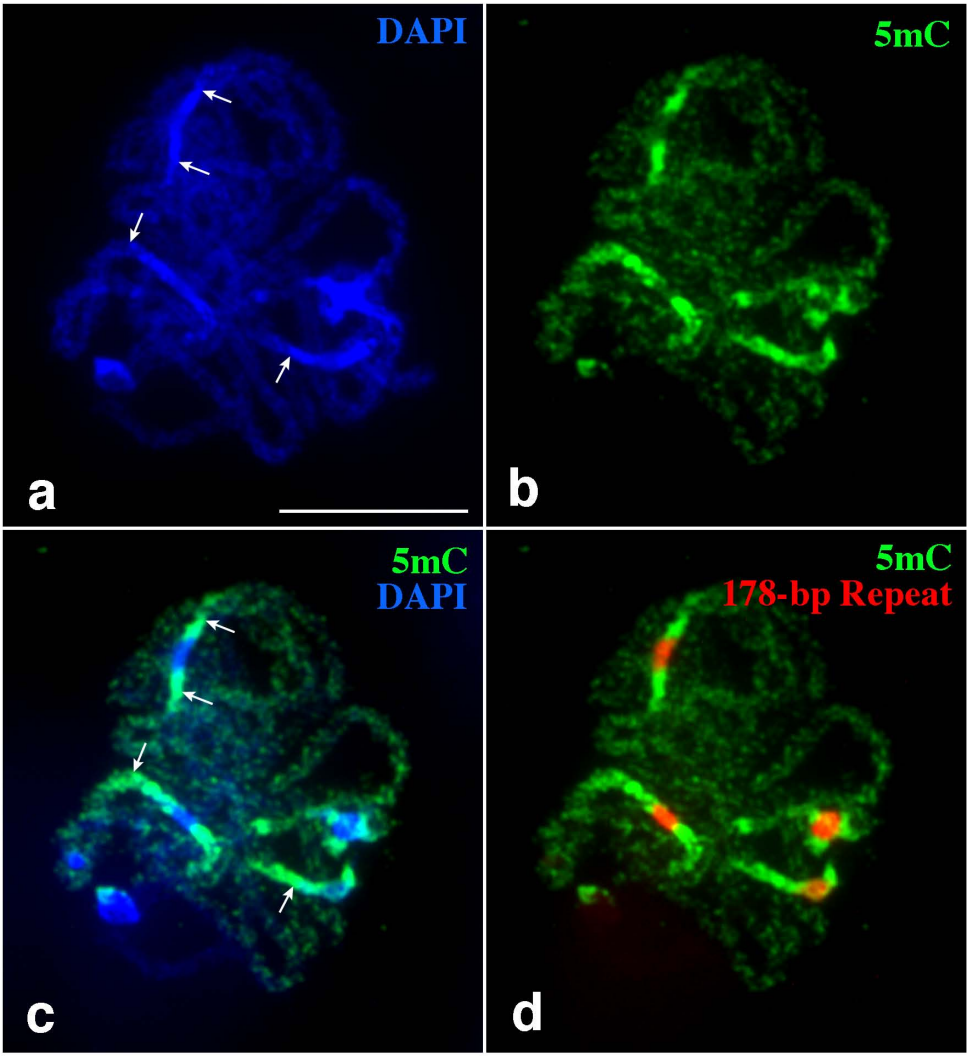
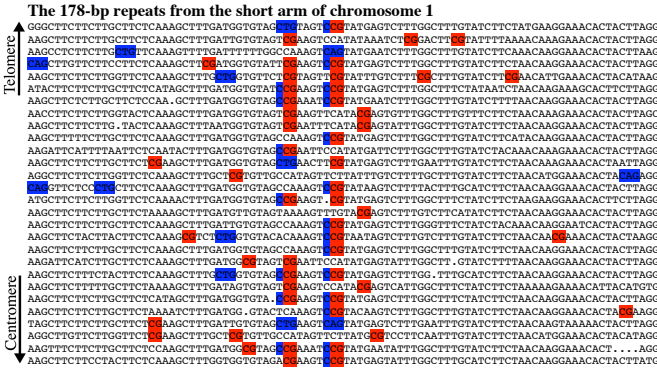


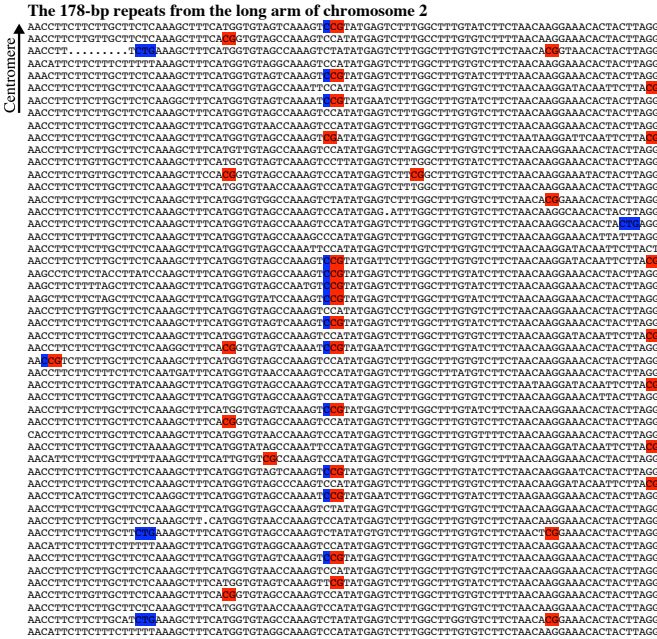
Supplemental Figure 1. Mapping of 5-methylcytosine and the 178-bp repeats on pachytene chromosomes. (**a**) DAPI staining of chromosomes from an early pachytene cell. The boundary between the centromeric heterochromatin and euchromatin is visible on some chromosomes (arrows). Bar = 10 µm. (**b**) Detection of 5-methylcytosine (green). (**c**) Merge of (a) and (b). The intensities of the 5-methylcytosine signals are extended and gradually reduced beyond the heterochromatin-enchromatin boundaries. (**d**) Merge of immunofluorescence signals from 5-methylcytosine and FISH signals from the 178-bp repeats.

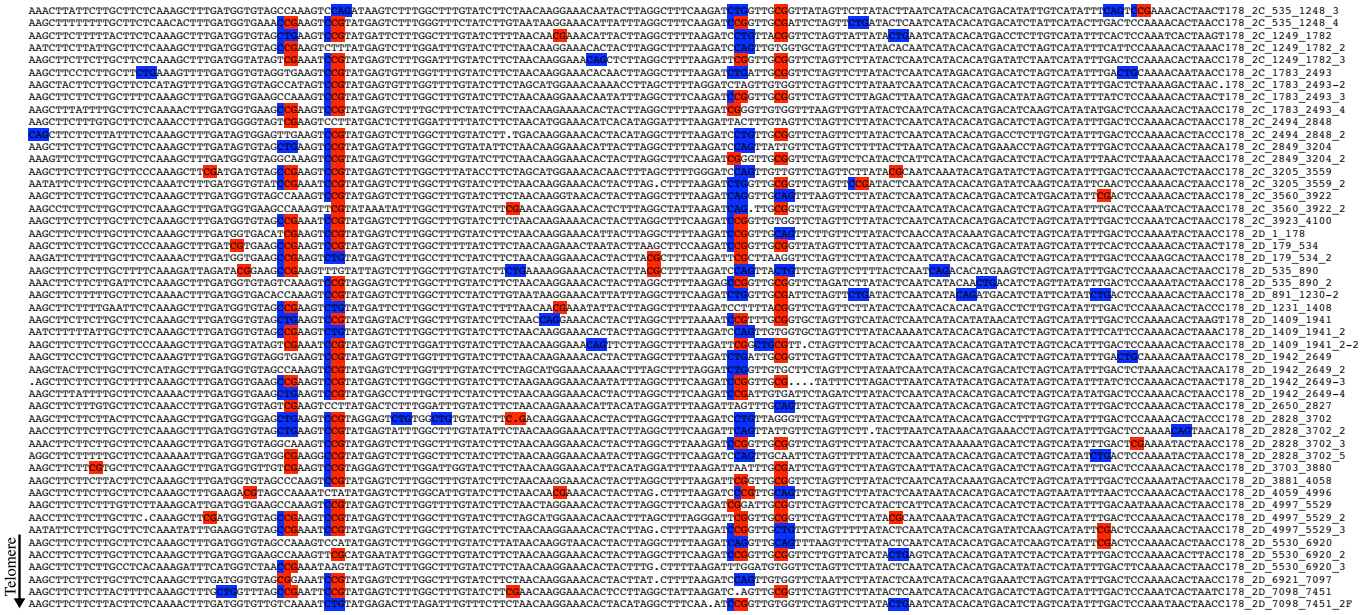
Supplemental Figure 2. Distribution of CG and CNG sites within all available 178-bp repeats in the current sequence map of *A. thaliana*. The color code for making CG and CNG sites is the same as in Figure 5. A noticeable transition between the "centromeric" and the "pericentromeric" distribution pattern is observed in the middle of the 178-bp repeat arrays from several chromosomal arms. The transition zones are marked by a green bar. The telomeric and centromeric directions of each 178-bp array are marked at the beginning and the end of each array.

The 178-bp repeats from the short arm of chromosome 1

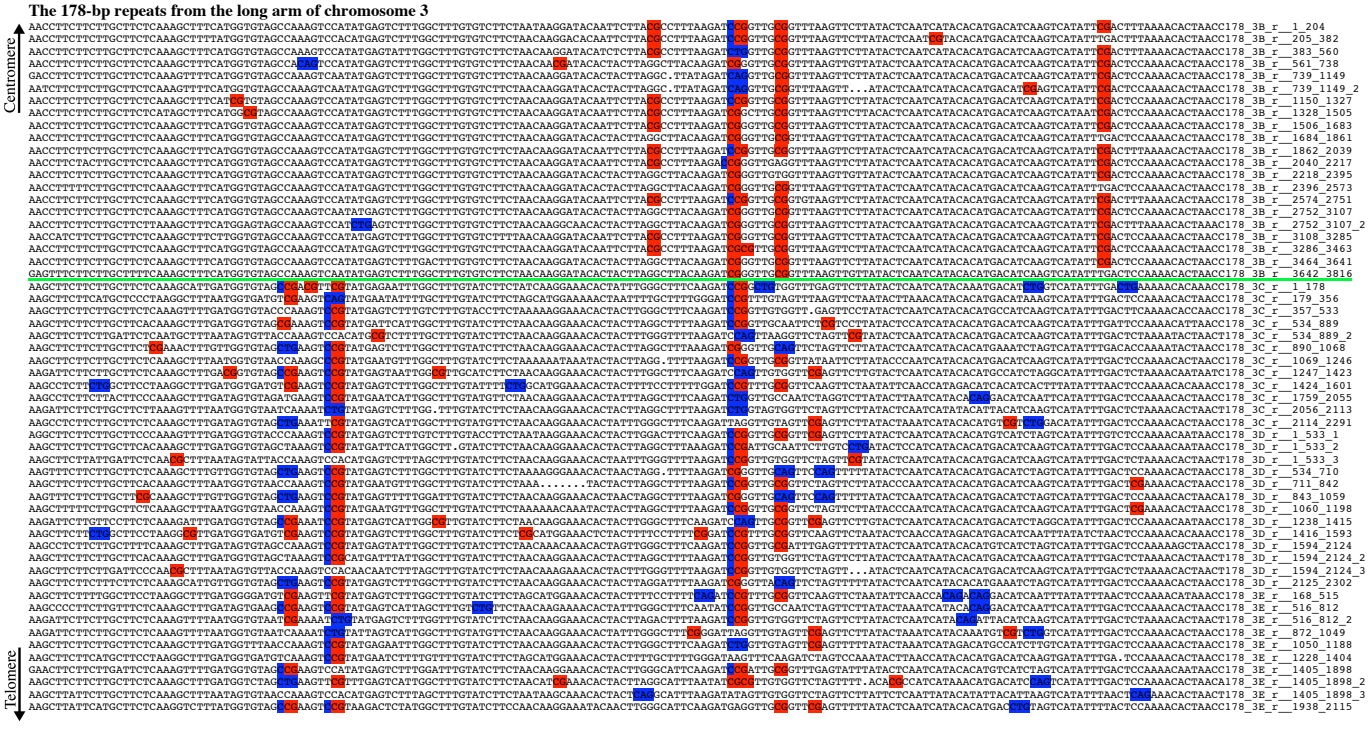


The 178-bp repeats from the long arm of chromosome 2

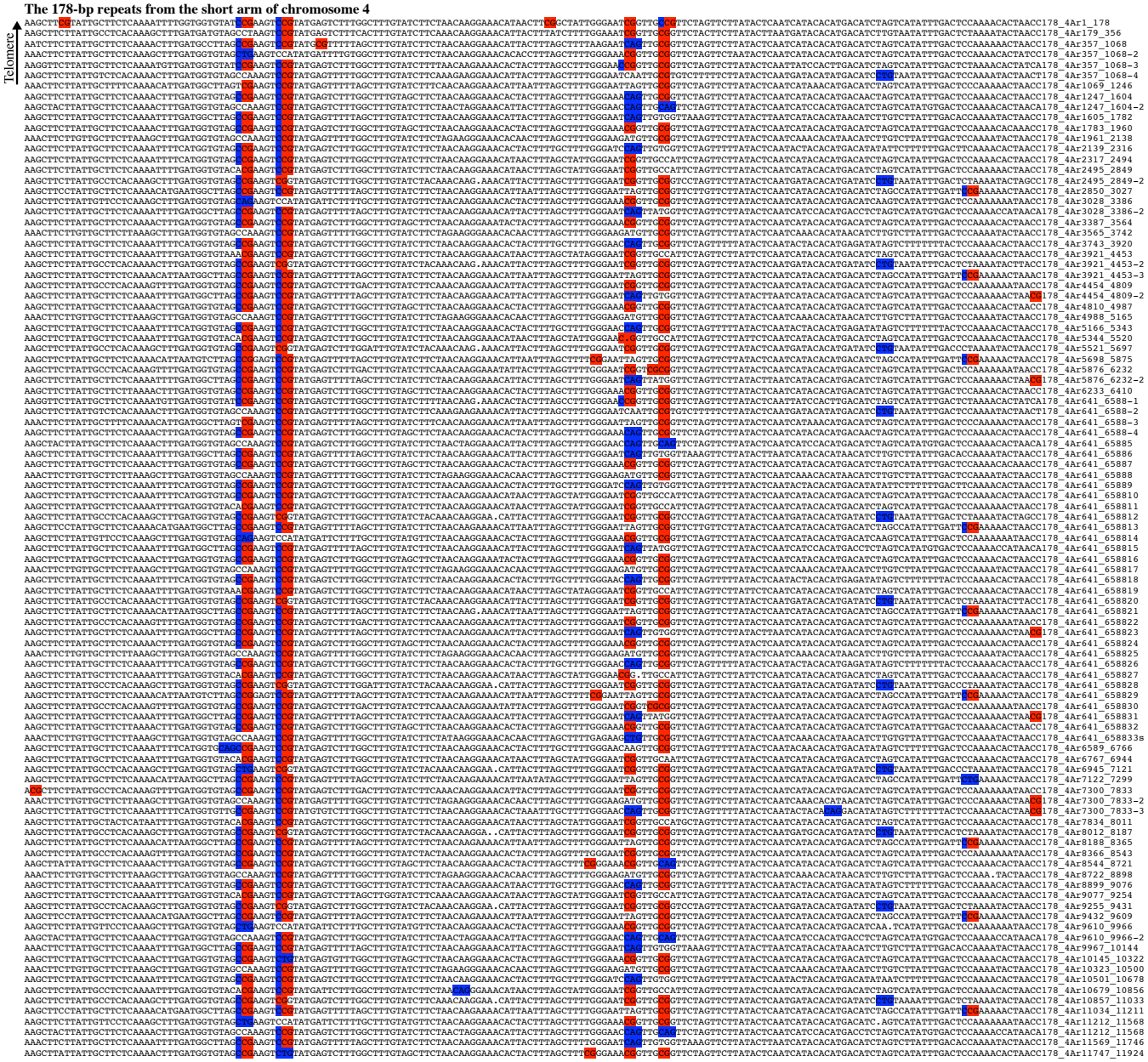


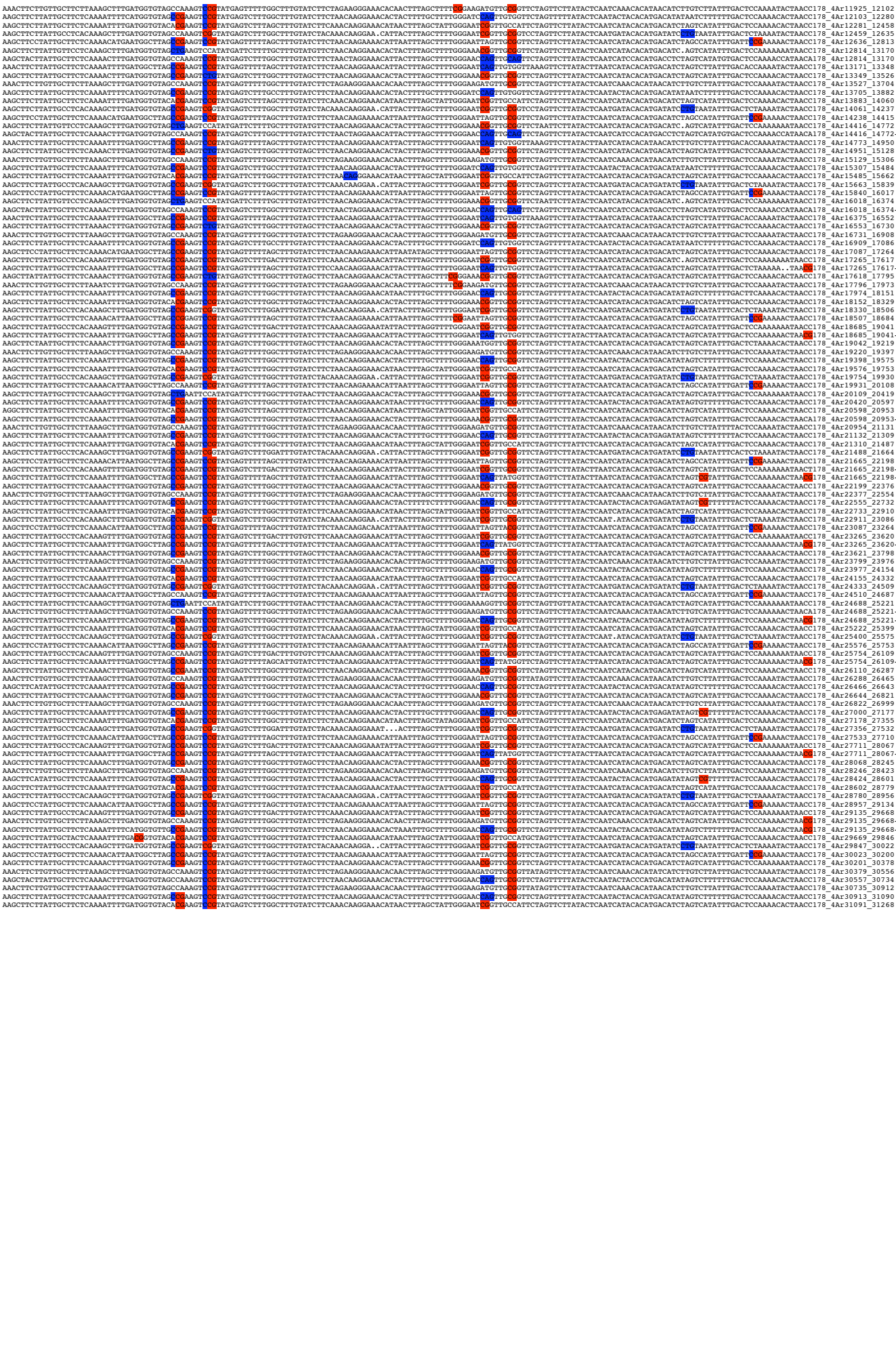


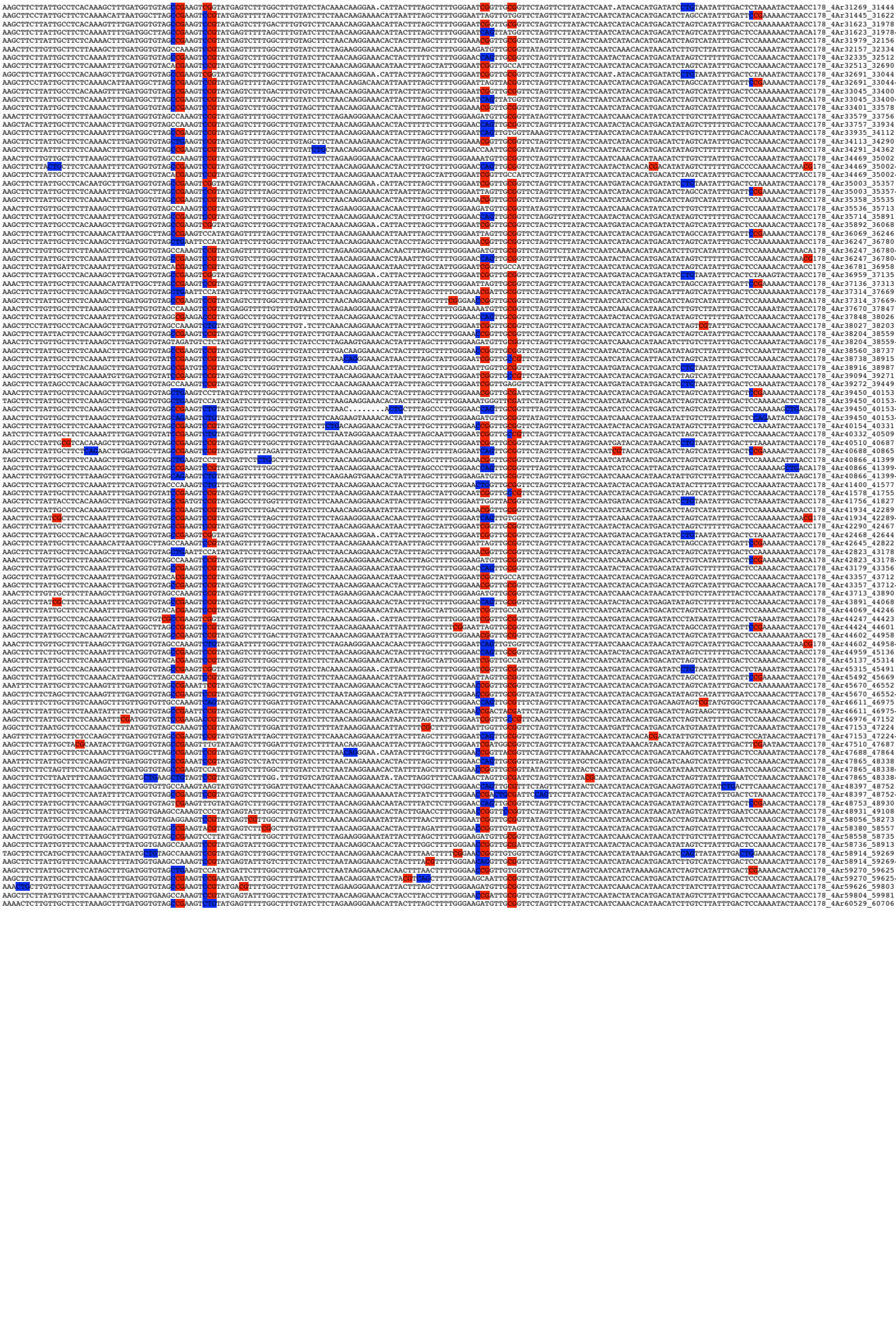
The 178-bp repeats from the long arm of chromosome 3

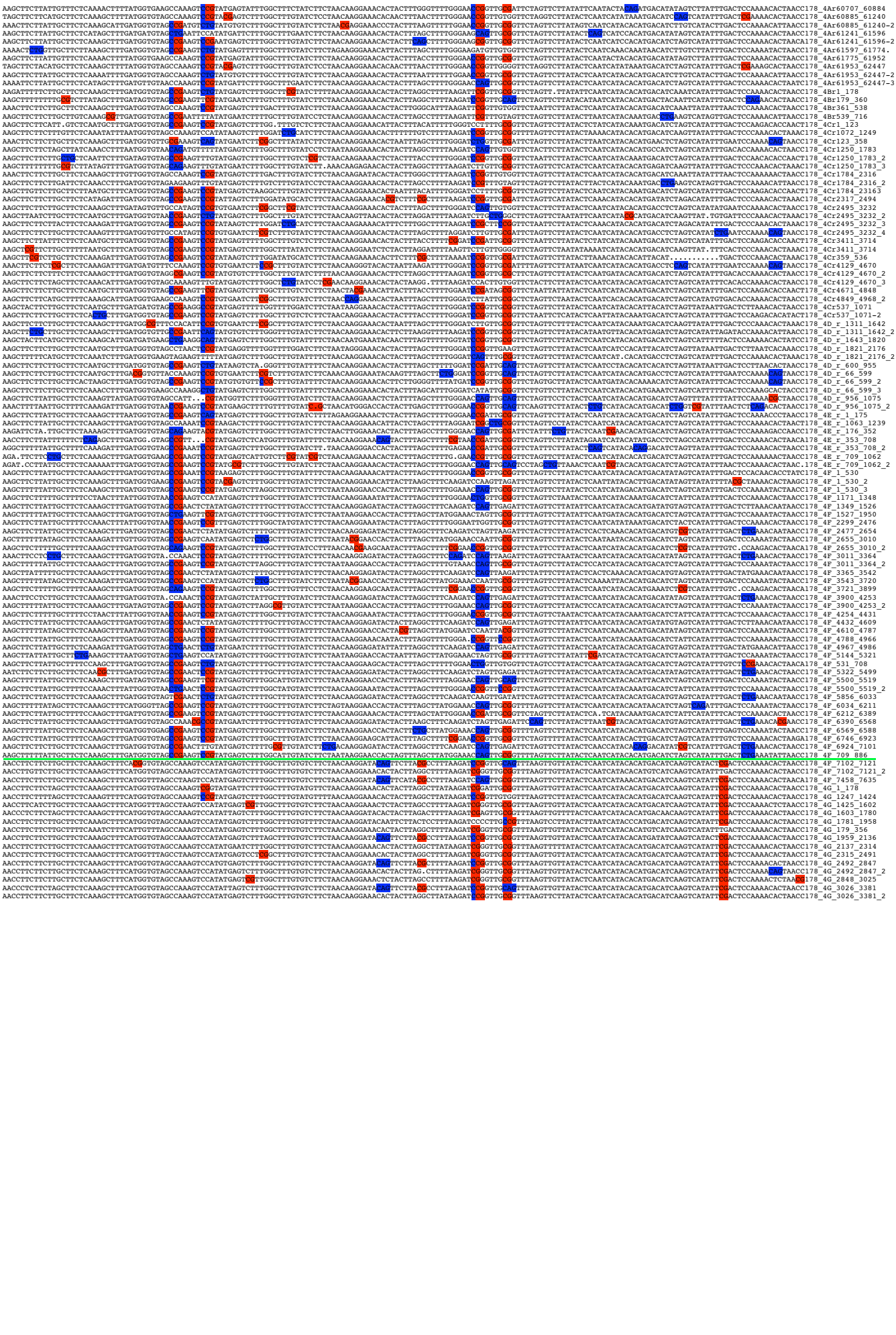


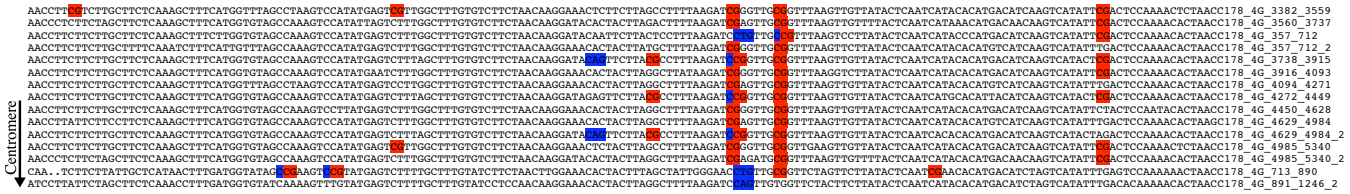
The 178-bp repeats from the short arm of chromosome 4



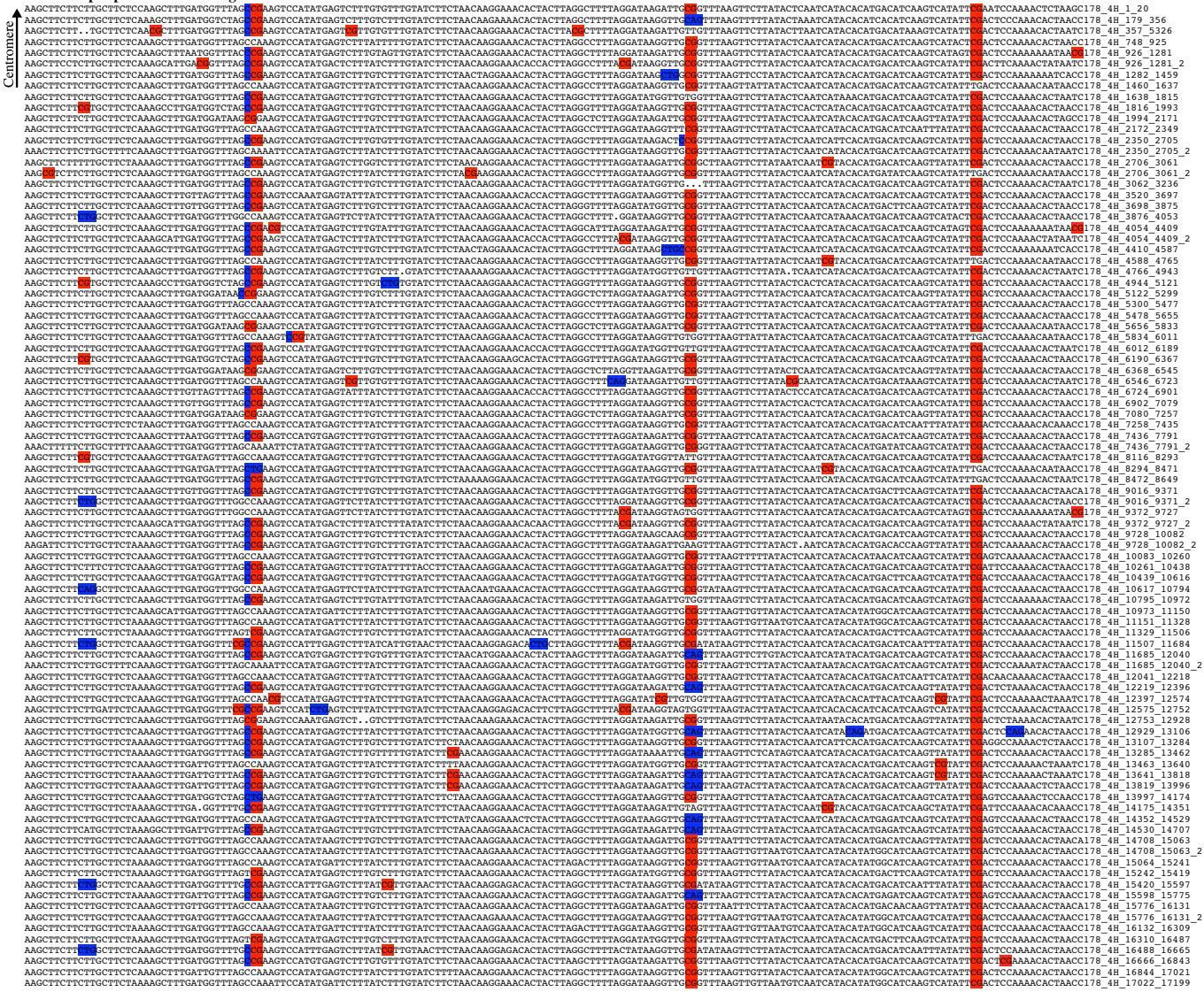


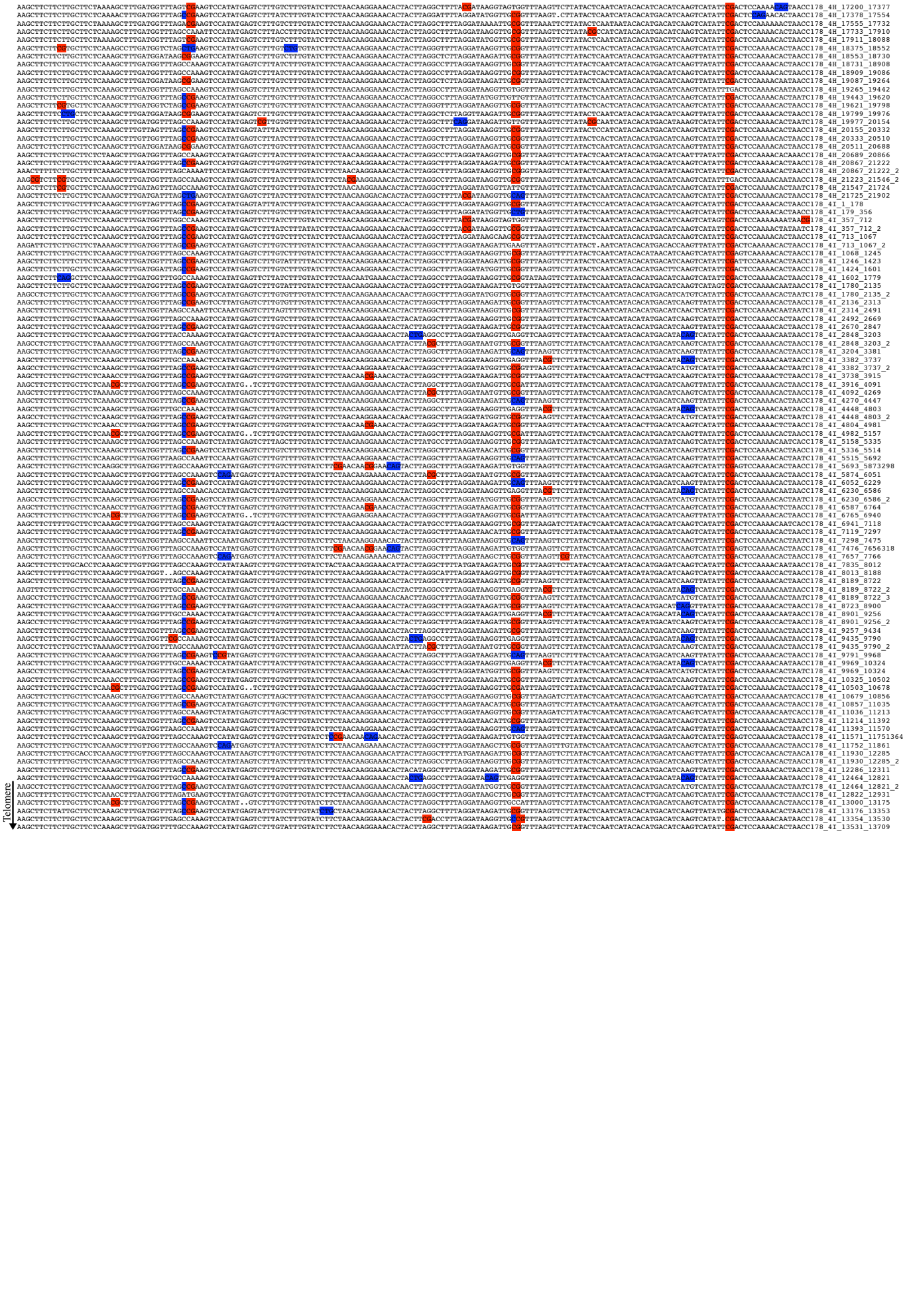




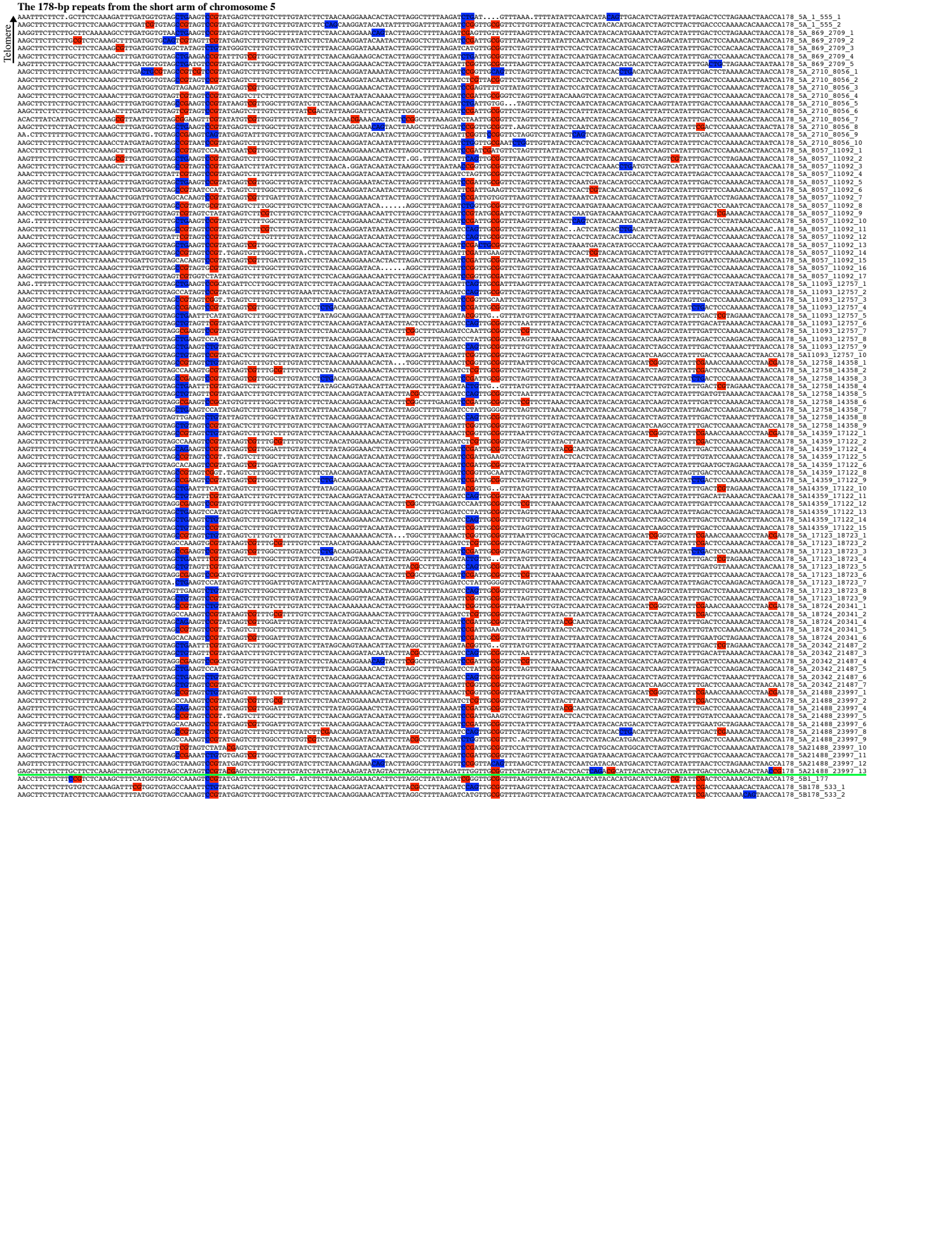


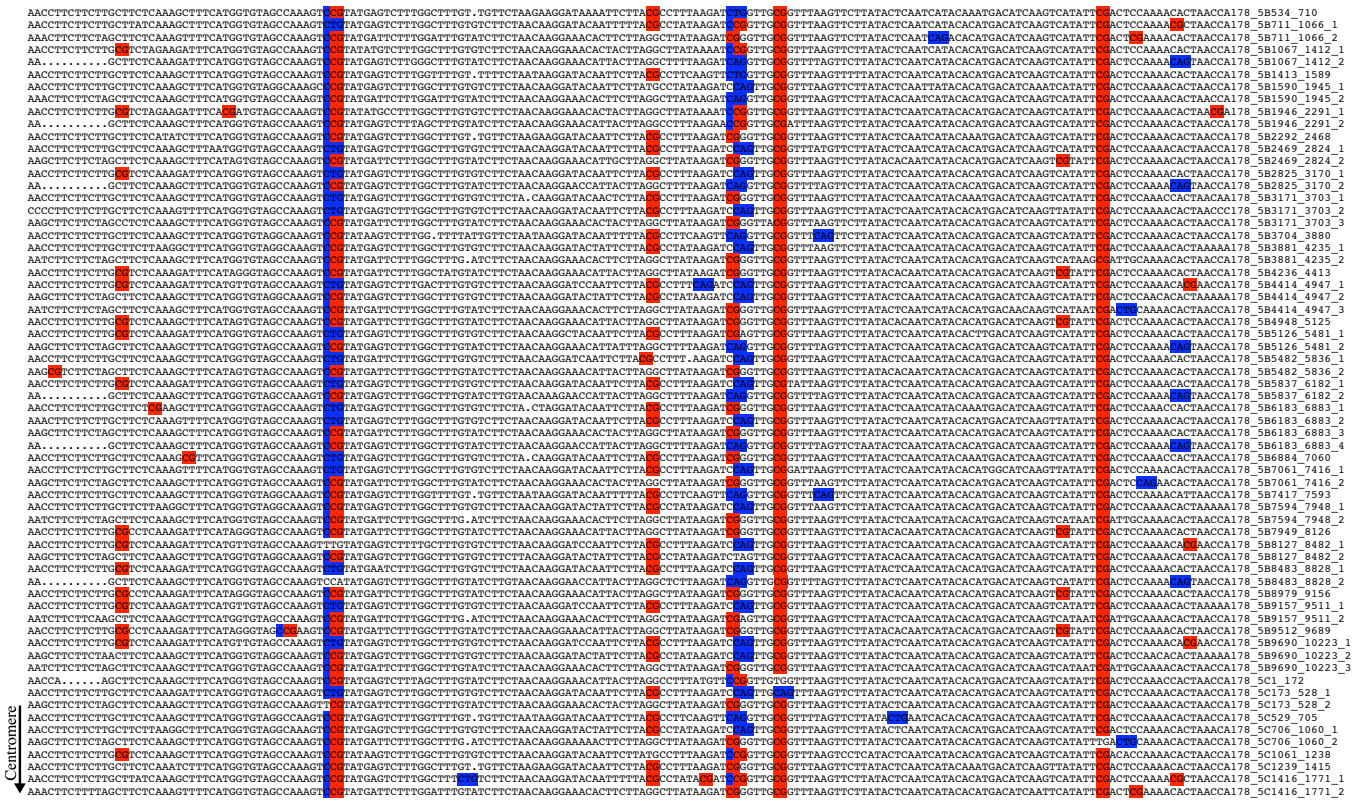
The 178-bp repeats from the long arm of chromosome 4



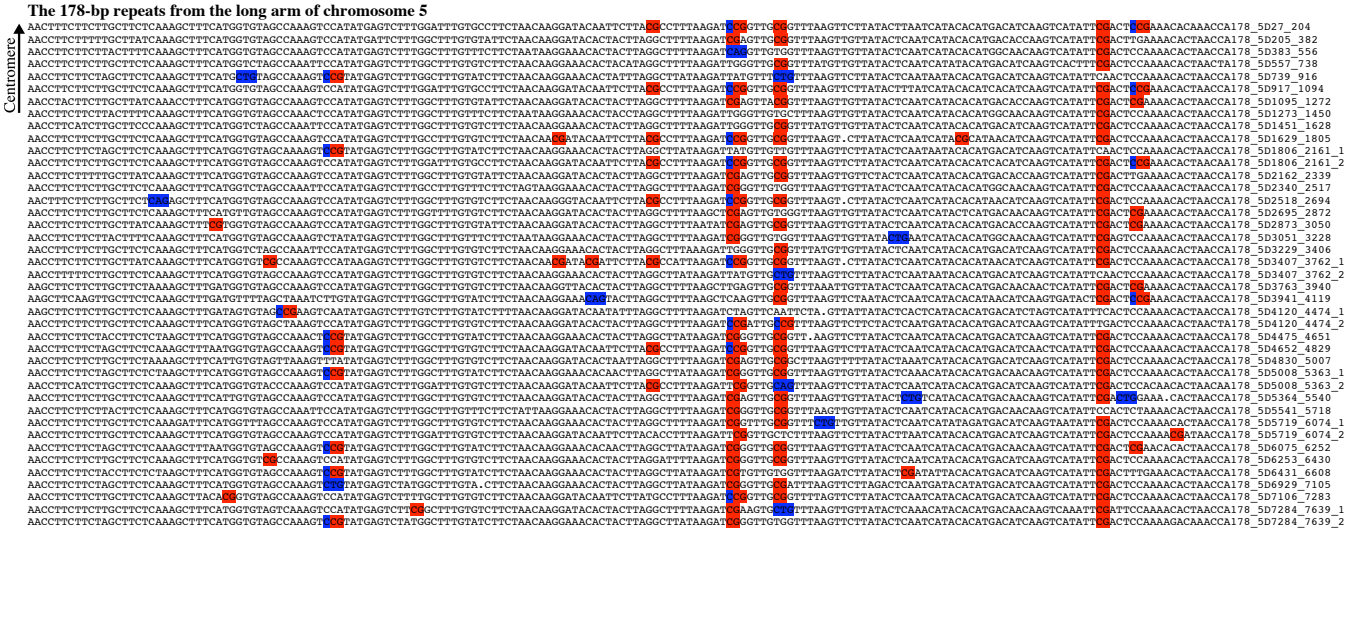

Telomere

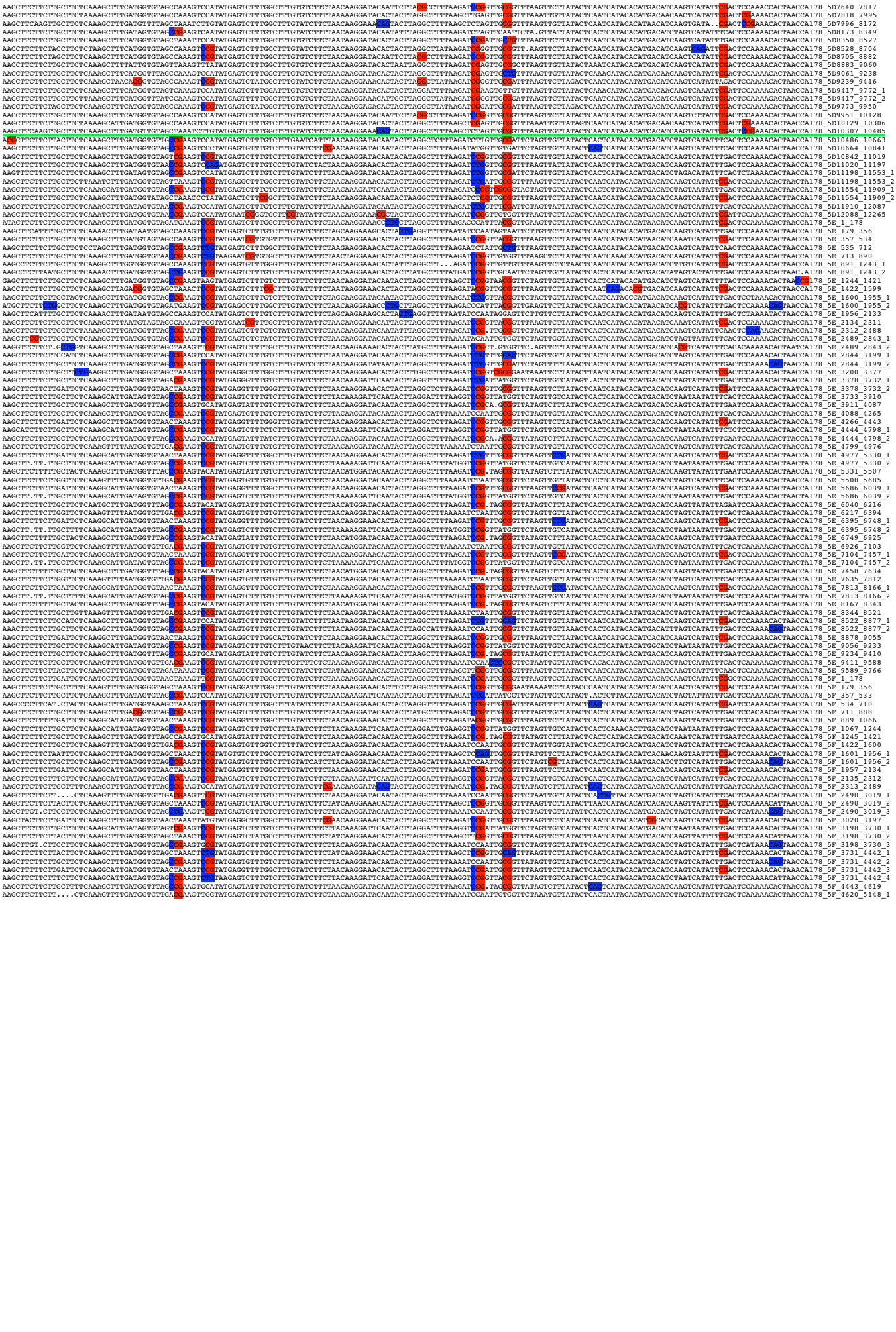
The 178-bp repeats from the short arm of chromosome 5

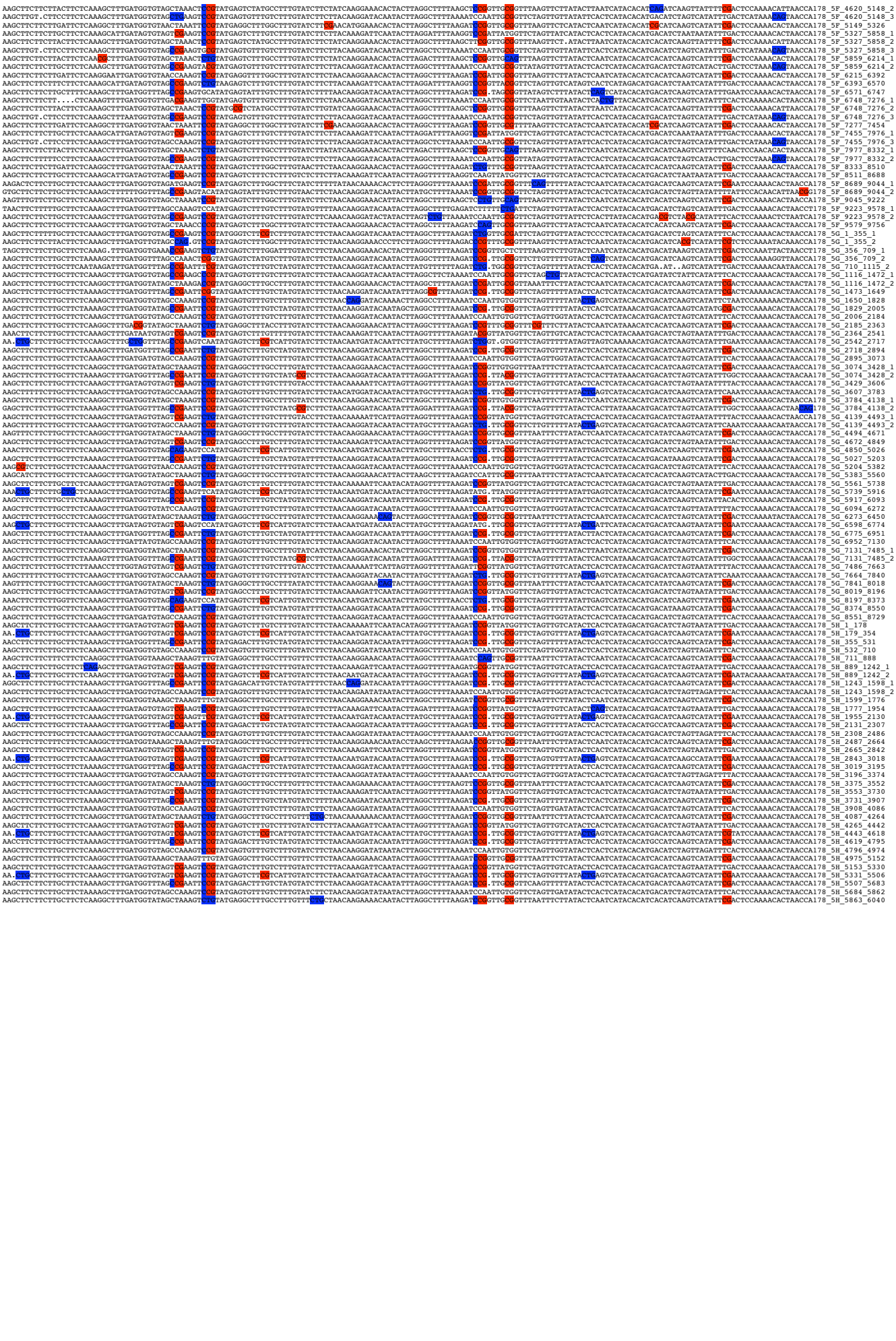


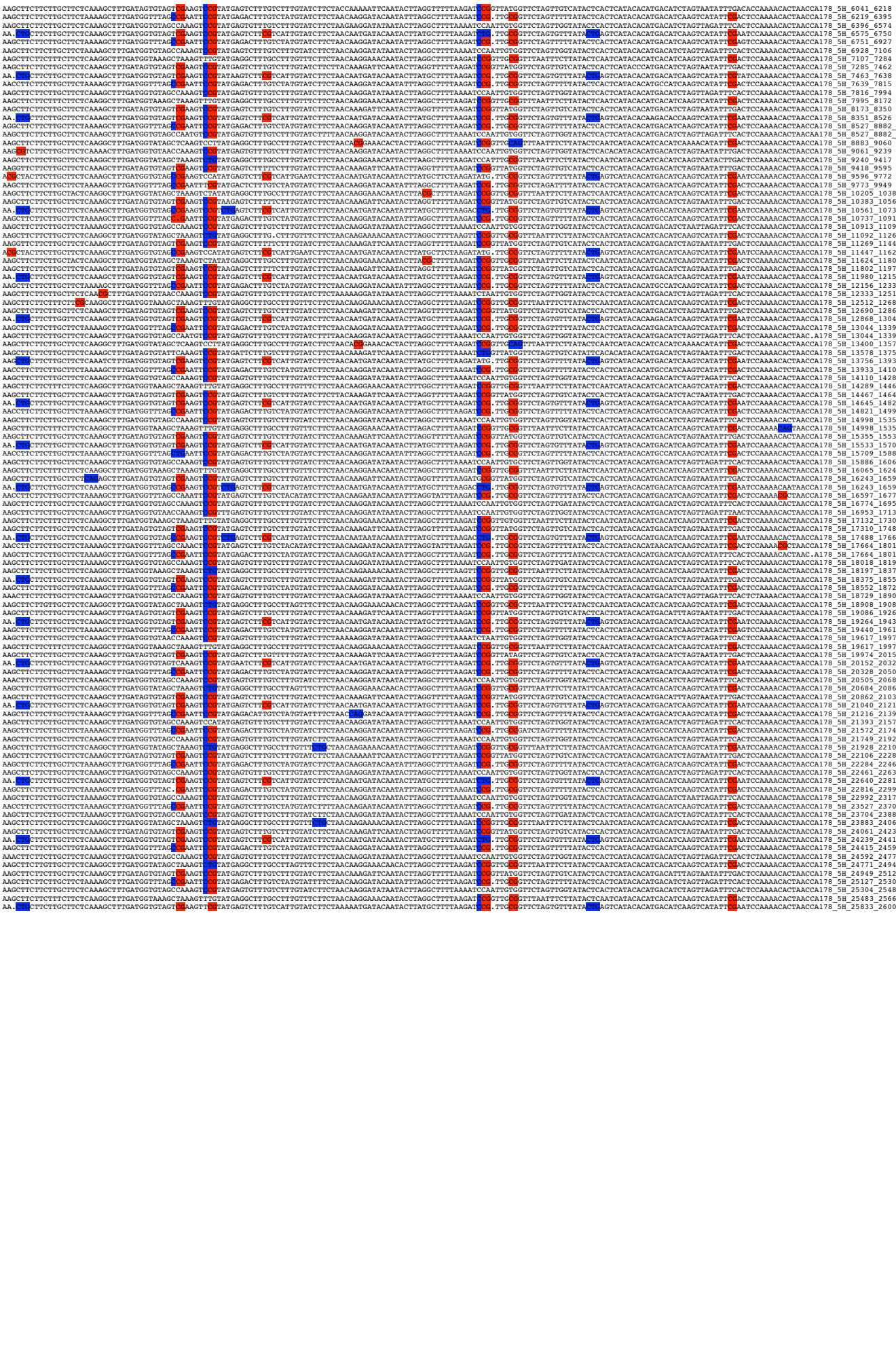


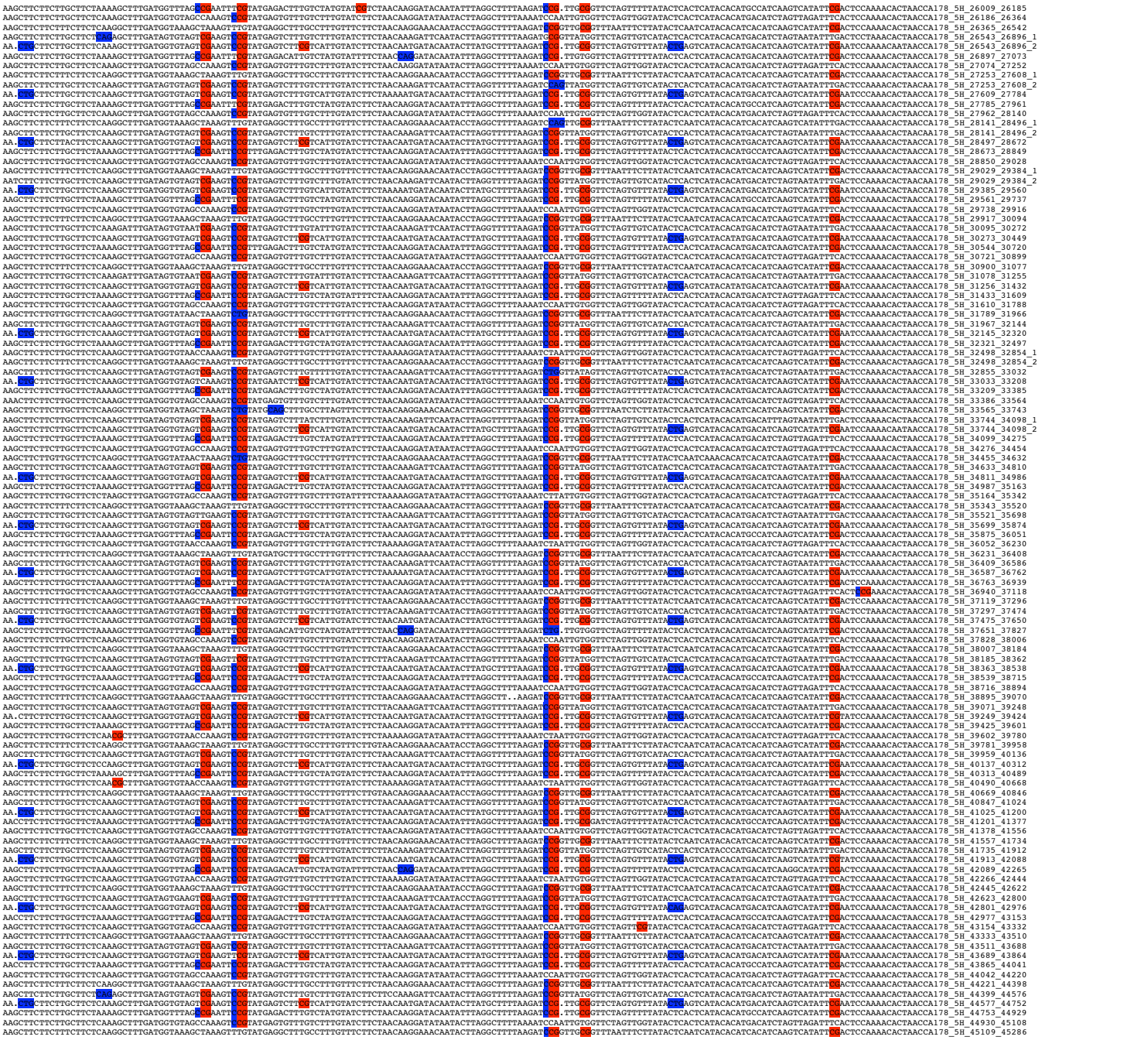
The 178-bp repeats from the long arm of chromosome 5

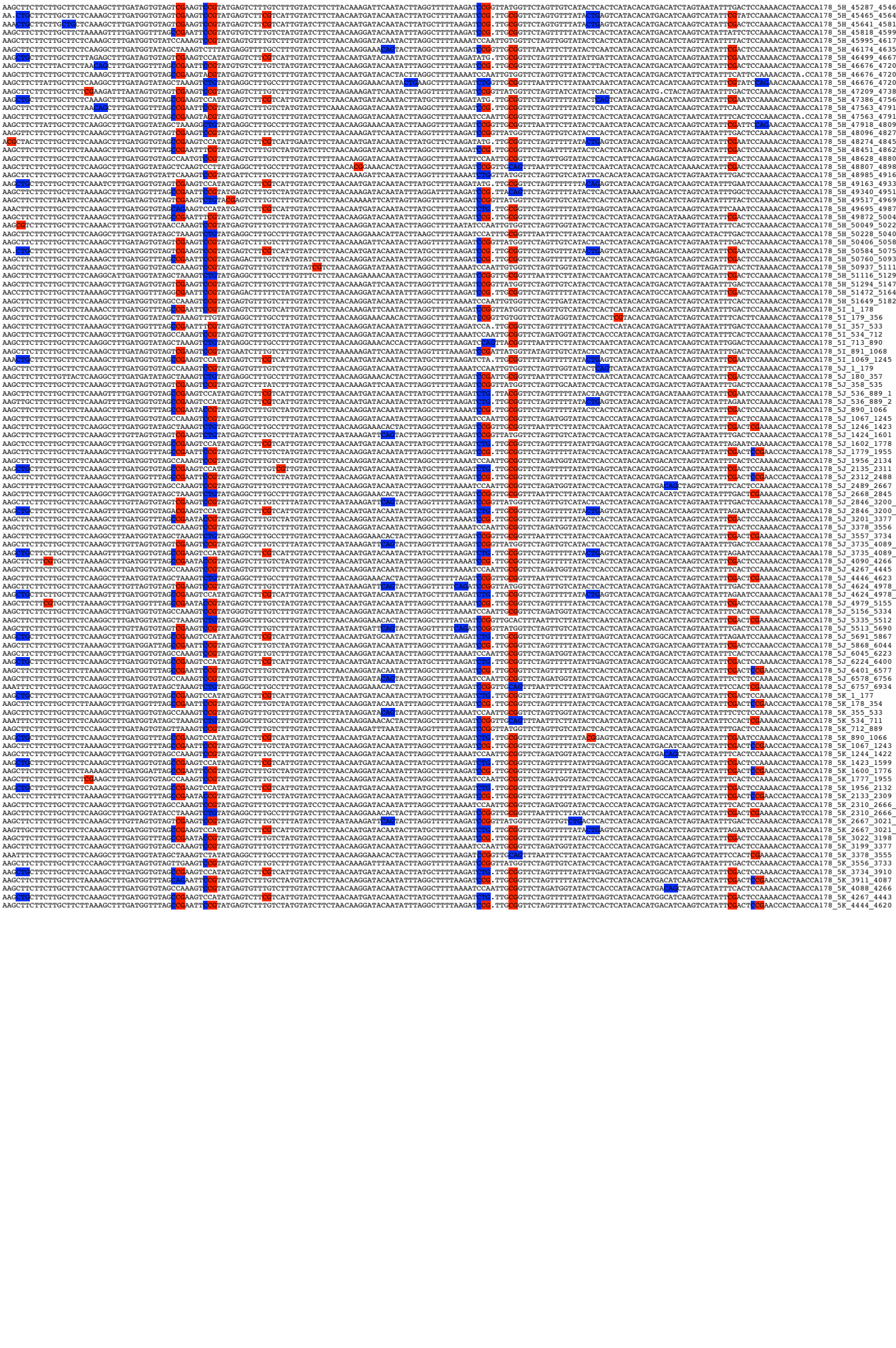


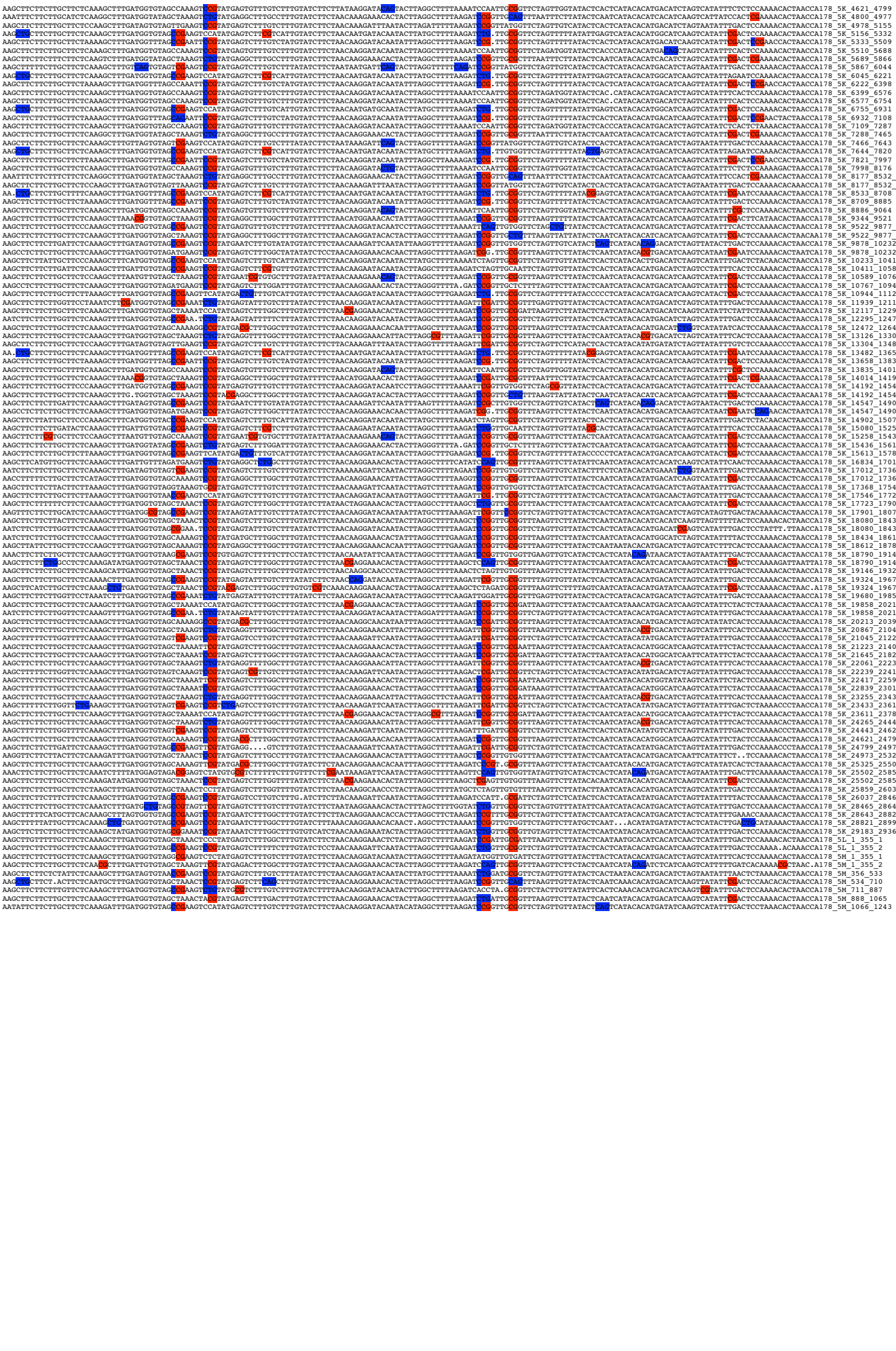


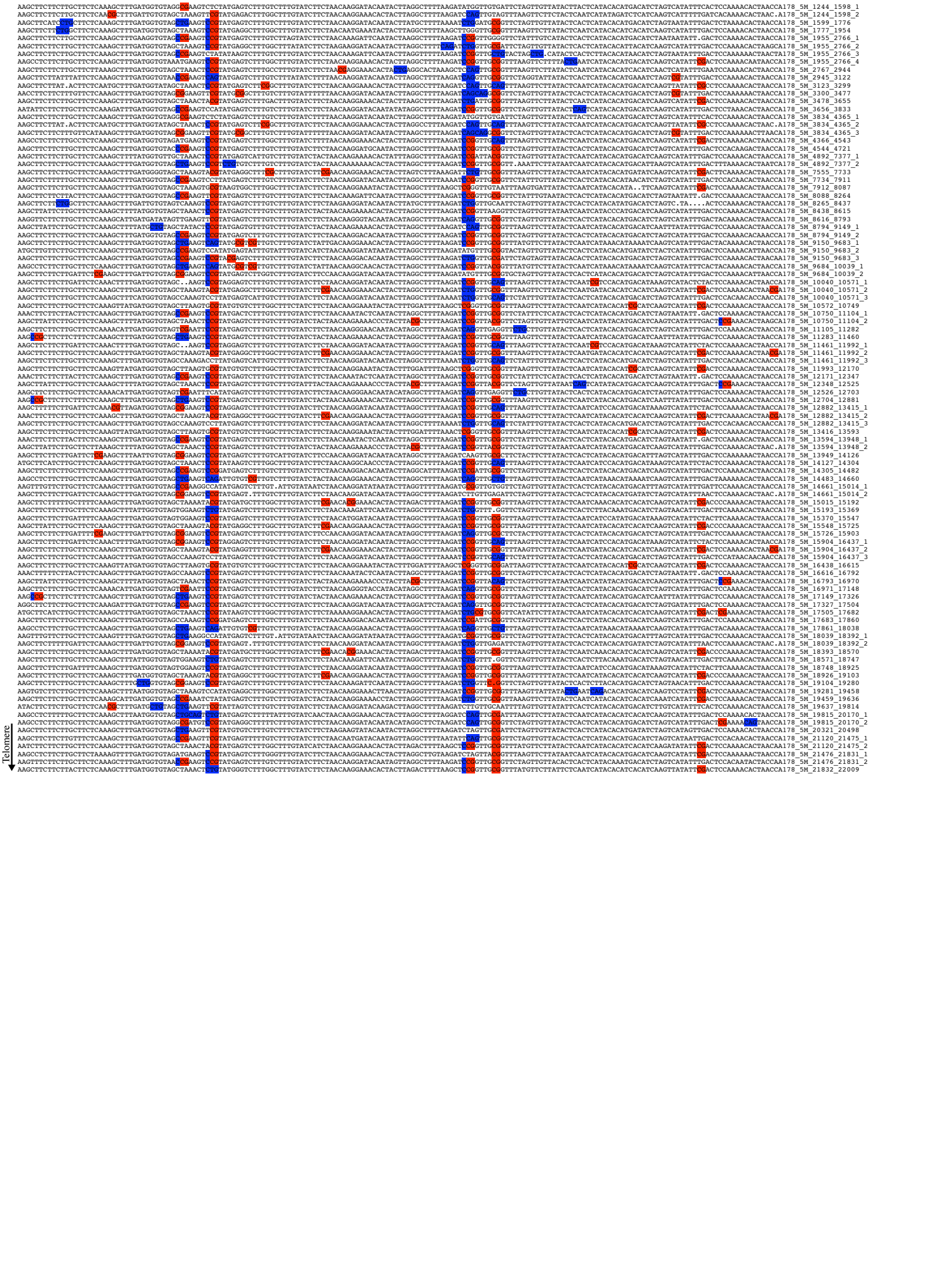


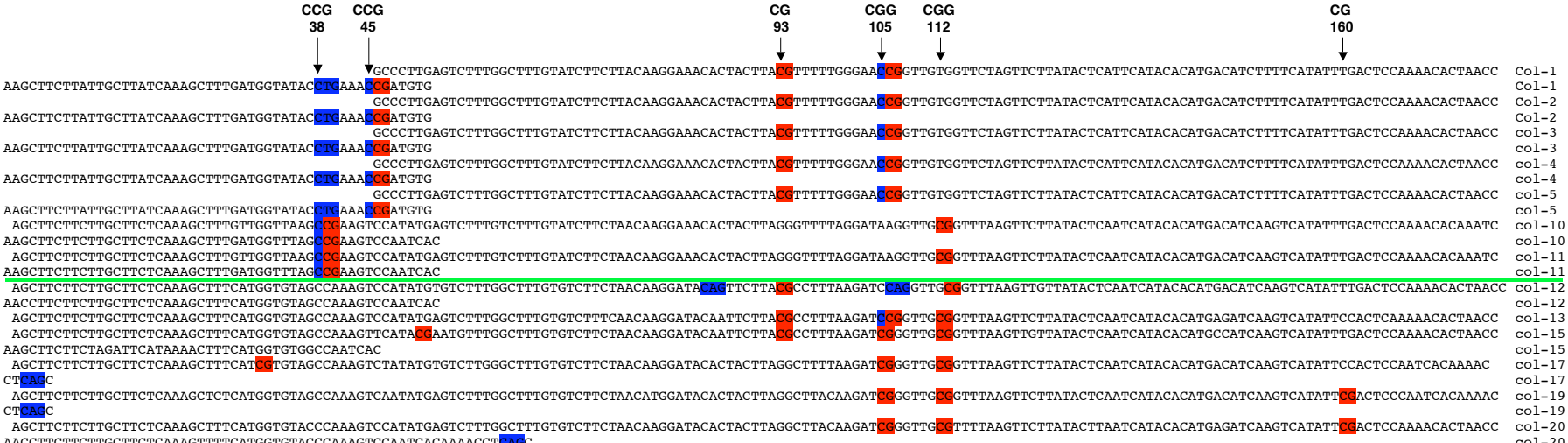









Telomere



Supplemental Figure 3. Distribution of CG and CNG sites within the 178-bp repeats isolated by PCR from the Columbia ecotype of *A. thaliana* by Hall et al. (Genome Res. 13: 195-205, AF494926-AF494941). The color code for making CG and CNG sites and the position of each site within the monomeric repeat are the same as in Figure 5. The six repeats with the centromeric distribution pattern and the seven repeats with the pericentromeric pattern are separated by a green bar.