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Novel RAPD (Random Amplified Polymorphic DNA) Markers on the W Chromosome in *Bombyx mori*

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The sex of *Bombyx mori* is determined by the presence or the absence of the W chromosome. The W chromosome mainly consists of complicated nested structure of various transposable elements, and no functional gene has not yet found on it. To further understand the overall structure of the W chromosome and challenge to find the feminizing gene, we performed a large scale RAPD screening. Genomic DNAs from strains p50 and C137 were compared between female and male by PCR using 2400 arbitrary 10-mer primers. As the result, we found nine novel female-specific bands which should be derived from the W chromosome. These female-specific RAPDs were cloned into a plasmid and sequenced. The blast homology analyses of their nucleotide sequences revealed that one of the nine RAPDs contained a fragment of BMC1, a non-LTR retrotransposon of B. mori, and other three RAPDs contained other retrotransposon-like sequences. We are now converting these RAPDs into SCAR (Sequence Characteristic Amplified Region) primers and screen the BAC genomic library by PCR to obtain their flanking sequences.