Precise centromere positioning on chicken lampbrush chromosomes. Sequential fluorescent in situ hybridizations (FISH) on chicken lampbrush chromosome 3 with tandem repeat CNM (red) and two BAC clones WAG32A13 (yellow) and WAG30L03 (green) that contain chicken genomic sequences. Chromosomes are counterstained with DAPI. Scale bar – 10 μm. Analysis of the distribution of FISH signals from these probes allowed to narrow down the position of the centromere on chicken chromosome 3. In general, giant lampbrush chromosomes represent a powerful system for integration of precise physical gene mapping and genome sequence data, including localization of chromosome regions with unknown DNA sequences such as arrays of tandem repeats.

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