

# Ordered Arrays of Native Chromatin Molecules for High-Resolution Imaging and Analysis

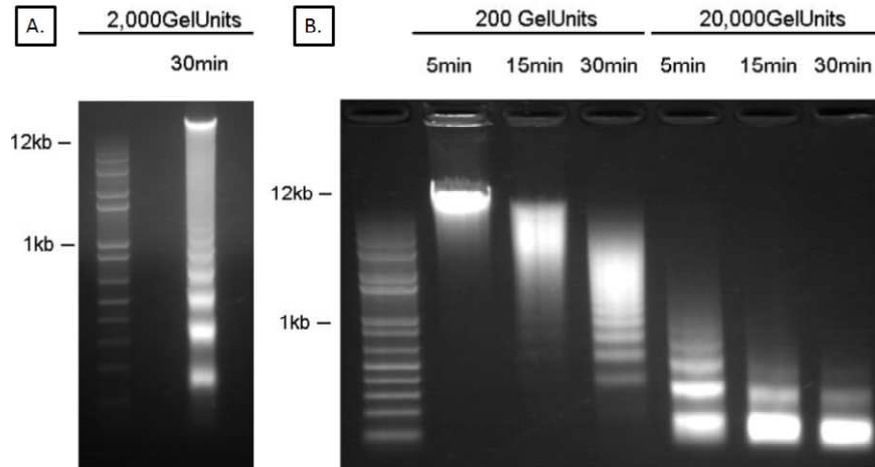
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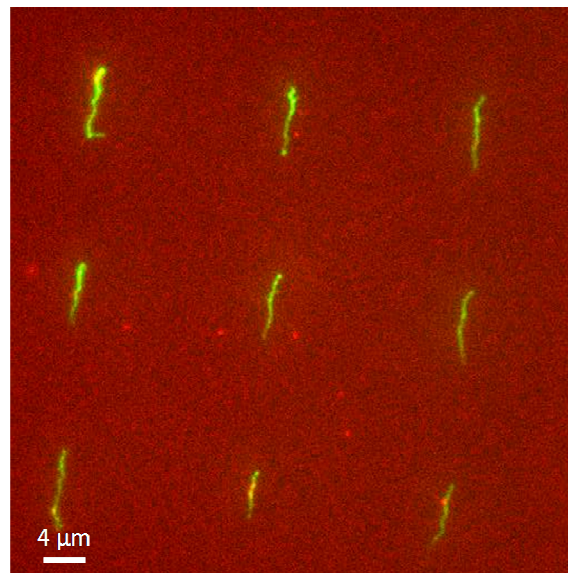
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## **Supporting Information**

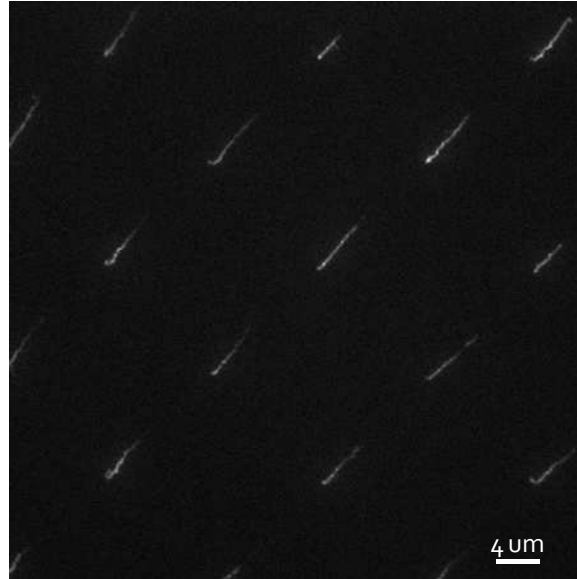
S1. Fluorescence video (accelerated x16). Manual scanning of a sample across a 1mm<sup>2</sup> array of stretched and oriented M091 chromatin molecules transferred onto an APTES-coated cover slip (excitation at 475 nm). The molecules are YOYO-1 stained.



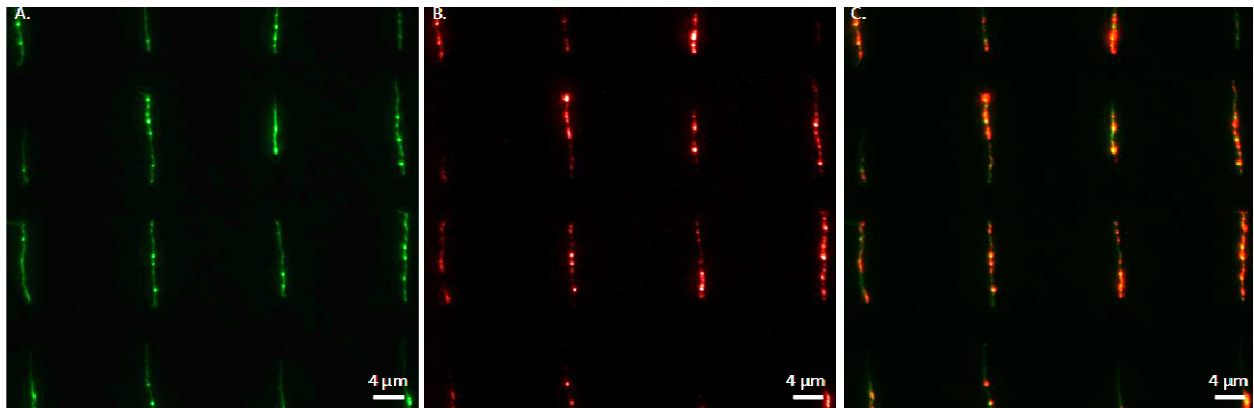
S2. Electrophoresis gels from M091 (A) and HeLa (B) chromatin extractions. Above each gel, the upper bars indicate micrococcal nuclease concentration and the digestion times associated with each lane.



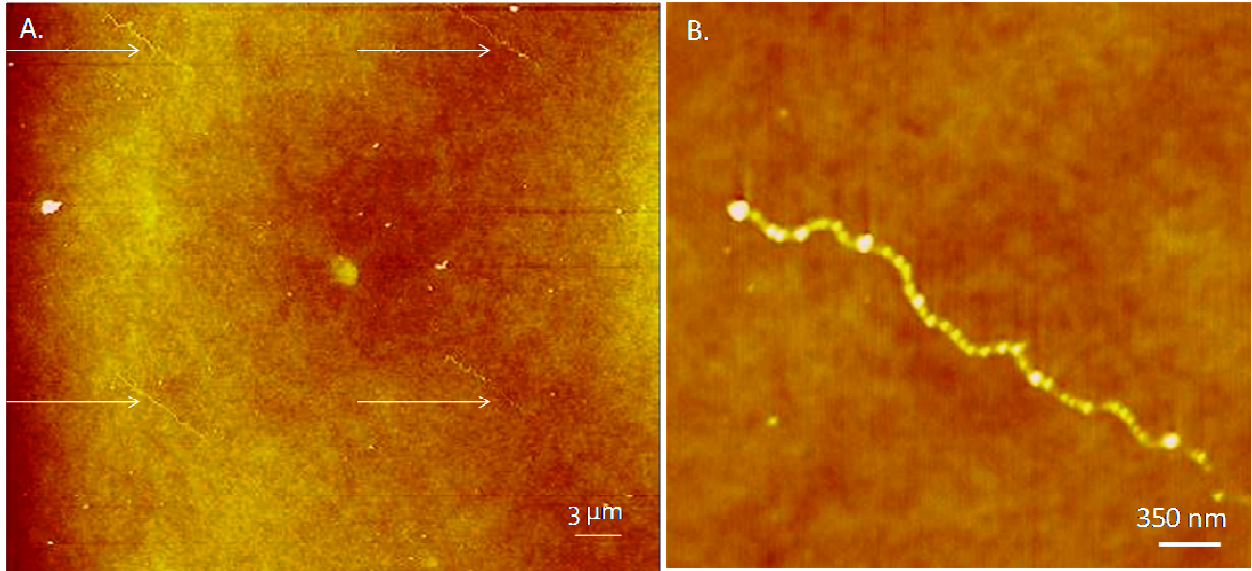
S3. Overlay fluorescence image of an array of YOYO-1 stained M091 chromatin molecules incubated against Alexa 647 secondary antibodies only (no primary antibody). The image is the resulting overlay of the image taken at 475 nm excitation and the image taken at 620 nm excitation from the same area of the sample.



S4. HeLa chromatin arrays. Fluorescence image of an array of stretched and oriented HeLa chromatin molecules transferred onto an APTES-coated cover slip (excitation at 475 nm). The molecules are YOYO-1 stained ([link to video](#)).



S5. HeLa chromatin arrays labeled with Alexa 647-labeled histone H3 antibodies. DNA is stained with YOYO-1. A. Fluorescence micrograph taken at 475 nm excitation. B. Fluorescence micrograph from the same area taken at 620 nm. C. Overlay image from A and B. Histones H3 (shown in false red) are colocalized with DNA (shown in false green).



S6. AFM images of HeLa chromatin arrays. A represents a large scan view where we notice the positioning of four chromatin molecules as indicated by the white arrows. B represents an enlargement of a chromatin molecule that is part of the array, showing nucleosome distribution and positioning along the stretched chromatin molecule.