

## Description of Additional Supplementary Files

### Supplementary Movies:

**Supplementary movie 1: Three-dimensional image of MRNIP-GFP droplets in cells.**

Cells expressing MRNIP-GFP were observed with a confocal microscope using Z-stack mode.

**Supplementary movie 2: Fusion of two adjacent MRNIP-GFP droplets in cells.** Cells expressing MRNIP-GFP were observed with a confocal microscope using time series mode.

**Supplementary movie 3: Fission of MRNIP-GFP droplet in cells.** Long-time observation of cells expressing MRNIP-GFP showed that one MRNIP-GFP droplet could fissure to two smaller ones.

**Supplementary movie 4: MRNIP droplets float and settle onto coverslip *in vitro*.**

Recombinant MRNIP-GFP protein was diluted in buffer containing 20 mM Tris-HCl, pH7.4 and 150 mM NaCl to a final concentration of 10  $\mu$ M. The solution was observed with a confocal microscope.

**Supplementary movie 5: Fusion of MRNIP-GFP droplets *in vitro*.** Fusion of adjacent MRNIP-GFP droplets was observed in solution that analyzed in Movie 4.

**Supplementary movie 6: The dynamic changes of chromatin condensates**