

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Long time-lapse acquisition in the FXm device of HT29 expressing hgeminin-mcherry, HeLa expressing hgeminin-GFP and Raji cells. The images show a full field acquired in 10X, dark pillars or area are the pillars that sustain the roof of the chamber at a constant height (see Fig. 1a), the culture medium contains a fluorescent dye (Dextran 10kDa coupled to Alexa488 or Alexa 647). Time is in hrs:min. frame rate is 10min, total acquisition length are 50hrs (HT29-hgem), 19h50 (HeLa-hgem), 39h30 (Raji), scale bar is 100 μ m.

File Name: Supplementary Movie 2

Description: Long time-lapse acquisition of HeLa expressing MyrPalm-GFP (membrane) and H2B-mcherry (DNA) in microchannels of cross section 102 μ m². Time is in hrs:min. frame rate is 5min, total acquisition length is 43h15min, and scale bar is 20 μ m.

File Name: Supplementary Movie 3

Description: One complete cell cycle of a HT29 cell expressing hgeminin-mcherry in FXM device. Left field shows images obtained with FXm, right field shows hgeminin-mcherry signal. Time is hrs:min, frame rate is 10min, total length of the movie is 18h40, and scale bar is 20 μ m.

File Name: Supplementary Movie 4

Description: Control (top) and Roscovitine-treated (bottom) HeLa cells expressing hgeminin-GFP in FXm device. For each cell, the movie starts 1 time-point (10min) before cytokinesis of the mother cell and stops 4 time-points (40min) after cytokinesis of the two daughter cells. Time is hrs:min, frame rate is 10min, scale bar is 20 μ m.