

Description of Additional Supplementary Information

MOVIE 1. Live cell imaging of metaphase hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A cell.

MOVIE 2. Additional example of live cell imaging of metaphase hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A cell.

MOVIE 3. Live cell image of endogenously-tagged EGFP-HURP metaphase HeLa cell overexpressing HaloTag-CENP-A.

MOVIE 4. Lattice light sheet imaging of metaphase hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A (Red, HURP signal; Green, CENP-A signal).

MOVIE 5. Live cell imaging of hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A cells blocked in metaphase (10 μ M MG132) treated with DMSO or 20 μ M of Parthenolide (PTL) for 90 min.

MOVIE 6. Live cell imaging of hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A cell line overexpressing EB3-tdTomato.

MOVIE 7. Live cell imaging of hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A cell line overexpressing EB3-tdTomato used to extract intensity line profiles.

MOVIE 8. Live cell imaging of hTERT-RPE1 EB3-GFP cells transfected either with RFP-WT- α -Tubulin or RFP-E254A- α -Tubulin, arranged according to RFP-E254A- α -Tubulin expression levels

MOVIE 9. Live cell imaging of hTERT-RPE1 EGFP-HURP/HaloTag-CENP-A cells transfected either with RFP-wt- α -Tubulin or RFP-E254A- α -Tubulin.