Supplementary information

Supplementary Movie 1

Mitotic progression in a control RNAi cell.

Hela cells were recorded 48h after transfection with psiRNA-control along with pH2B-EYFP. Frames were collected every 2 minutes, and displayed at 6.25 frames/sec rate.

This movie corresponds to Figure 3C.

Supplementary Movie 2

Prometaphase delay in a CENP-F RNAi cell.

Hela cells were recorded 48h after transfection with psiRNA-CENPF along with pH2B-EYFP. Frames were collected every 2 minutes, and displayed at 6.25 frames/sec rate.

This movie corresponds to Figure 3C1.

Supplementary Movie 3

Metaphase delay in a CENP-F RNAi cell.

Hela cells were recorded 48h after transfection with psiRNA-CENPF along with pH2B-EYFP. Frames were collected every 4 minutes, and displayed at 6.25 frames/sec rate.

This movie corresponds to Figure 3C2.

Supplementary Movie 4

CENP-F RNAi cell presenting abnormal segregation at anaphase.

Hela cells were recorded 48h after transfection with psiRNA-CENPF along with pH2B-EYFP. Frames were collected every 4 minutes, and displayed at 6.25 frames/sec rate.

This movie corresponds to the Figure 3C3.
Supplementary Movie 5

Premature anaphase in absence of CENP-F.

Hela cells were recorded 48h after transfection with psiRNA-CENPF along with pH2B-EYFP. Frames were collected every 4 minutes, and displayed at 6.25 frames/sec rate. This movie corresponds to the Figure 3C4.

Supplementary Figure 6

CENP-F depletion does not affect Hec1 or Clasp1 localization. 48h after transfection with the control or CENP-F duplexes, cells were fixed with methanol and stained for (blue) DAPI, (green) CENP-F, (red, panel A and B, respectively) Hec1 or Clasp1. Prometaphase cells in control and CENP-F RNAi, as well as metaphase cells are shown as a complete stack of images. (Because all focal planes are merged, kinetochores present in the enlarged pictures are not necessarily sister ones.) CENP-F staining overlaps with Hec1, which is located at the outer kinetochore, but not with Clasp1, which is present at the plus end of microtubules.

Supplementary Movie 7

Metaphase delay in a control cell due to a single Mad1 lagging kinetochore.

HeLa cells stably expressing Mad1 fused to YFP were cotransfected with psiRNA-control and pH2B-mRFP and recorded 48h after transfection. Mad1 is represented in gray and green in the merged movie; chromosomes are in red. DIC is also presented. Images were taken at 1 minute intervals and are displayed at 3 frames/sec. This movie corresponds to the Figure 7A.
Supplementary Movie 8

Metaphase delay in CENP-F RNAi cells corresponds to abnormal retention of Mad1 at kinetochores of aligned chromosomes. Stably expressing EYFP-Mad1 HeLa cells were recorded 48h after transfection of psiRNA-CENP-F along with the pH2B-mRFP. Mad1 is represented in gray and green in the merged movie; chromosomes are in red. DIC is also presented. Images were taken at 1 minute intervals and are displayed at 3 frames/sec. This movie corresponds to the Figure 7B.
Bomont et al. Supplemental Fig. 6