

1 **Supplementary Movie Legends**

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3 **Movie S1. Time lapse movies of Securin-mCherry degradation during 2 to 4-cell division in**
4 **mouse preimplantation embryos. Chromosomes of injected blastomeres were labelled with**
5 **H2B-GFP.**

6 S1A: Representative control embryo.

7 S1B: Representative AurkB-OE embryo.

8 S1C: Representative AurkC-OE embryo.

9 S1D: Representative siAurkB embryo.

10 S1E: Representative siAurkC embryo.

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12 **Movie S2. Time lapse movie of AurkC-KD induced cytokinesis failure during 2 to 4-cell**
13 **division in mouse preimplantation embryos. Chromosomes of injected blastomeres were**
14 **labelled with H2B-GFP.**

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16 **Movie S3. Time lapse confocal movies of Oct4-paGFP degradation in 4-cell mouse**
17 **preimplantation embryos. Nucleus of injected blastomeres were labelled with H2B-mCherry.**

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19 S3A: Representative control embryo.

20 S3B: Representative AurkB-OE embryo.

21 S3C: Representative AurkC-OE embryo.

22 S3D: Representative siAurkB embryo.

23 S3E: Representative siAurkC embryo.