

Supplementary Material

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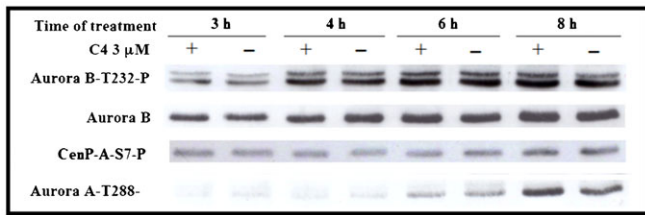


Fig. S1. Kinetics of phosphorylation. Western blots were realised on cells synchronized at S-phase and then released for varying times. The phosphorylations of aurora kinase B (T232), CenP-A (Ser 7), and aurora kinase A (Thr 288) are also shown in control (-) and C4 treated cells (+). Aurora kinase B detection is used for estimation of the amount of mitotic cells.

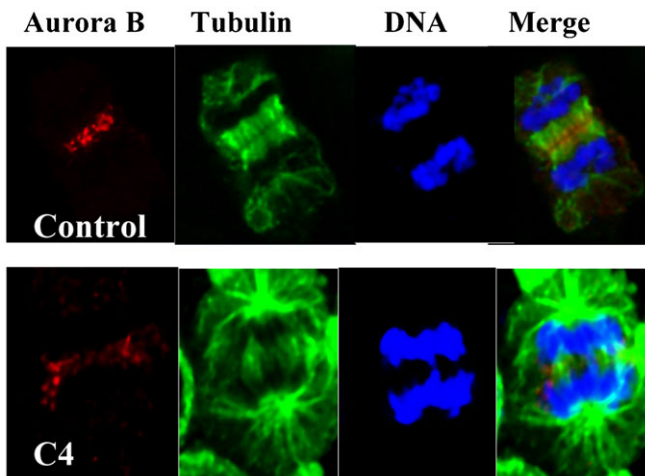


Fig. S2. Localisation of aurora B kinase and α -tubulin in late anaphase in control and C4 treated HeLa cells.

Table S1. Analysis of WB signals. The signals of Western blots were quantified by the Image J software. Two determinations were done for each band. First we analyzed the kinetic of histone H3 phosphorylations (on Ser 10 and 28) presented in Fig. 2A, then we quantified the signal of aurora kinase B in metaphase (blot shown in supplementary material Fig. S1). Briefly the integrate density (area \times intensity) was measured twice for each signal and the average is reported in the table. Then the tubulin signals were used to calculate the relative intensity.

Kinetic	Tubulin integrated density	Relative intensity tubulin	H3-Ser10 integrated density	Relative intensity H3-Ser 10	H3-Ser28 integrated density	Relative intensity H3-Ser 28
Co-3h	3386	100	1661	49 \pm 1	349	10 \pm 0.5
C4-3h	3387	100	327	10 \pm 0.2	23	1 \pm 0.1
Co-4h	3644	100	3607	99 \pm 2	2251	61 \pm 1
C4-4h	3939	100	3012	76 \pm 2	1303	33 \pm 2
Co-6h	3504	100	5734	164 \pm 3	5134	147 \pm 2
C4-6h	4208	100	5356	127 \pm 5	4029	96 \pm 4
Co-8h	3853	100	7334	190 \pm 3	8366	217 \pm 4
C4-8h	4221	100	7776	184 \pm 4	6494	154 \pm 3

Kinetic	Tubulin integrated density	Relative intensity tubulin	Aurora B integrated density	Relative intensity aurora B
Co-8h	1630	100	3370	207 \pm 8
C4-8h	1359	100	3198	235 \pm 8

Table S2. Cell cycle analysis. The percentage of HeLa cells in each cell cycle phase after 4, 8, 10, 12, 25 and 30 hours under C4 (3 μ M) treatment or DMSO (Control) : <2N represents apoptotic cells; 2N for cells in G0/G1; S for cells in S phase; 4N for cells in G2/M and >4N for polyploid cells.

DNA	<2N	2N	S	4N	>4N
4-hour control	1	13	53	33	0
4-hour C4 3 μM	1	16	58	24	1
8-hour control	4	16	4	74	2
8-hour C4 3 μM	4	12	14	67	3
10-hour control	1	62	3	34	0
10-hour C4 3 μM	4	25	5	63	3
12-hour control	3	76	4	15	2
12-hour C4 3 μM	2	50	4	41	3
25-hour control	2	42	13	39	4
25-hour C4 3 μM	5	48	20	25	2
30-hour control	2	65	7	22	4
30-hour C4 3 μM	7	54	13	23	3