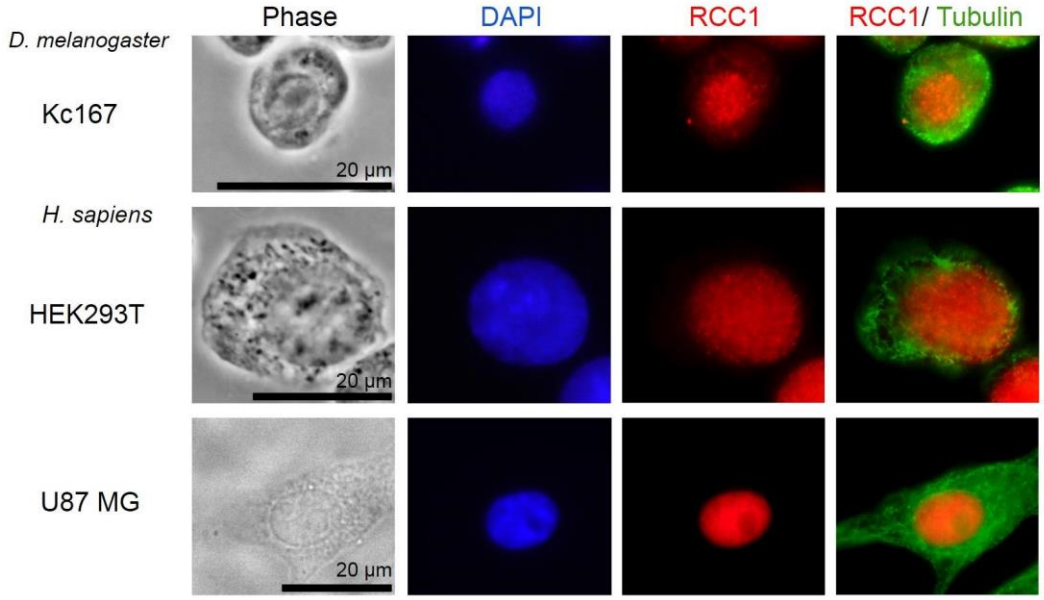


Figure S1. Optical microscopy images of the localization of RCC1 (red) and alphaTub (green) proteins during interphase. Immunostaining of Kc167 cells (*D. melanogaster*) and HEK293T, U87MG cells (*H. sapiens*). Fixation with 3.7% formaldehyde.

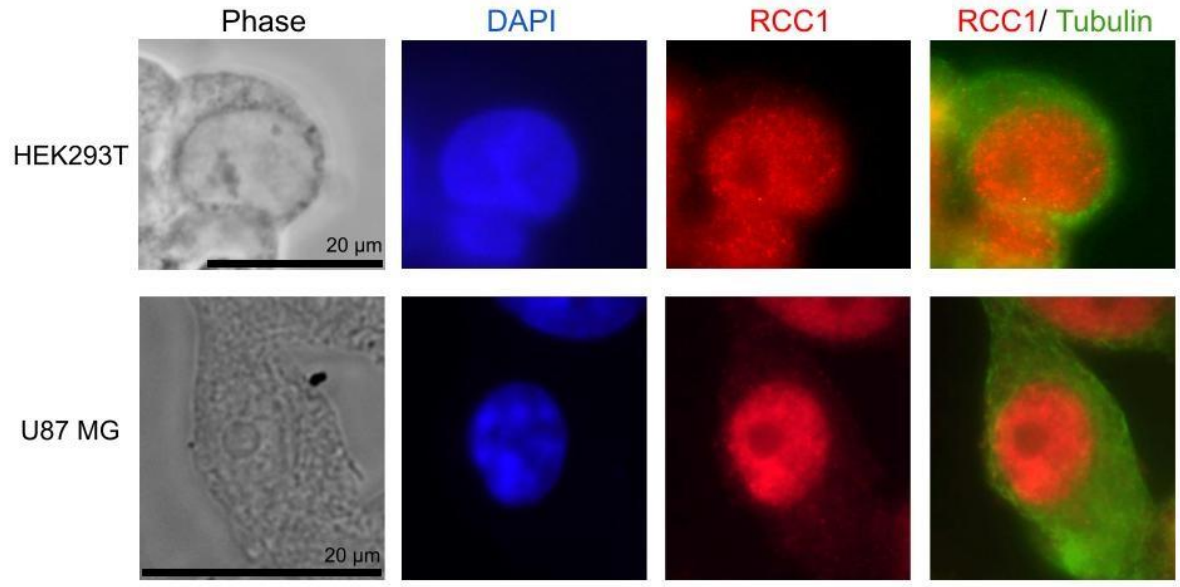


Figure S2. Optical microscopy images of the localization of RCC1 (red) and alphaTub (green) proteins during interphase. Immunostaining of HEK293T and U87MG cells (*H. sapiens*). Acetone–methanol fixation

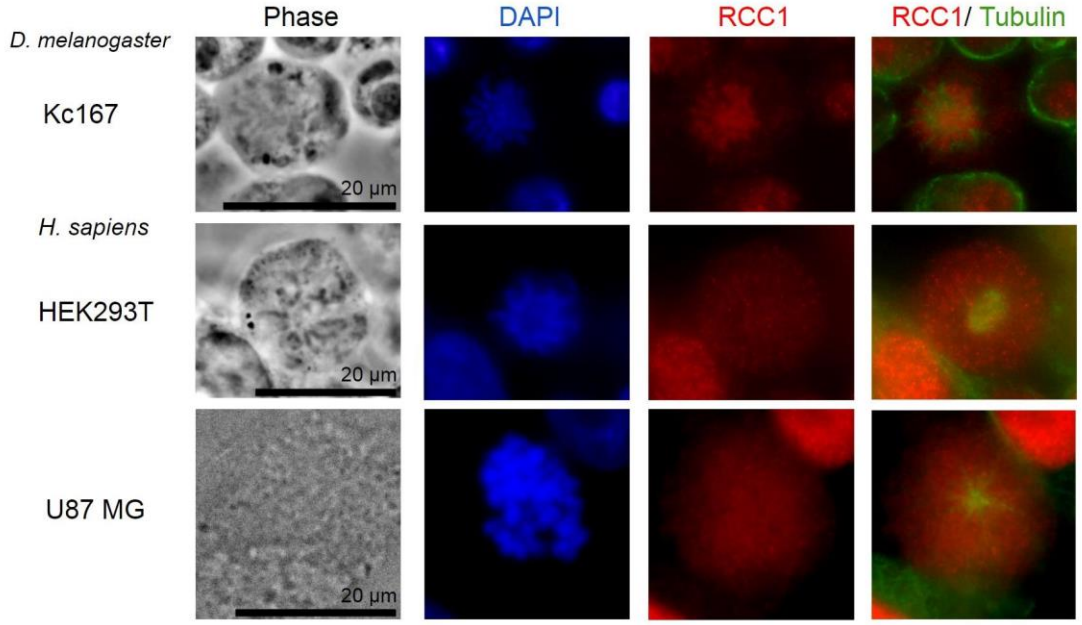


Figure S3. Optical microscopy images of the localization of RCC1 (red) and alphaTub (green) proteins during prophase. Immunostaining of Kc167 (*D. melanogaster*), HEK293T, and U87MG (*H. sapiens*) cells. Fixation with 3.7% formaldehyde.

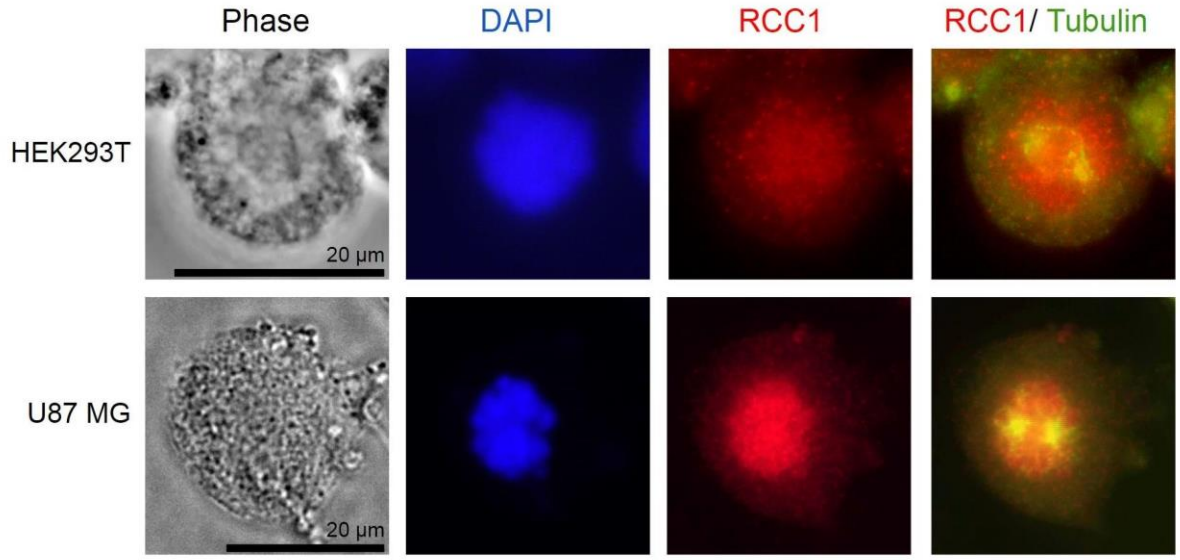


Figure S4. Optical microscopy images of the localization of RCC1 (red) and alphaTub (green) proteins during prophase. Immunostaining of HEK293T and U87MG cells (*H. sapiens*). Acetone–methanol fixation.

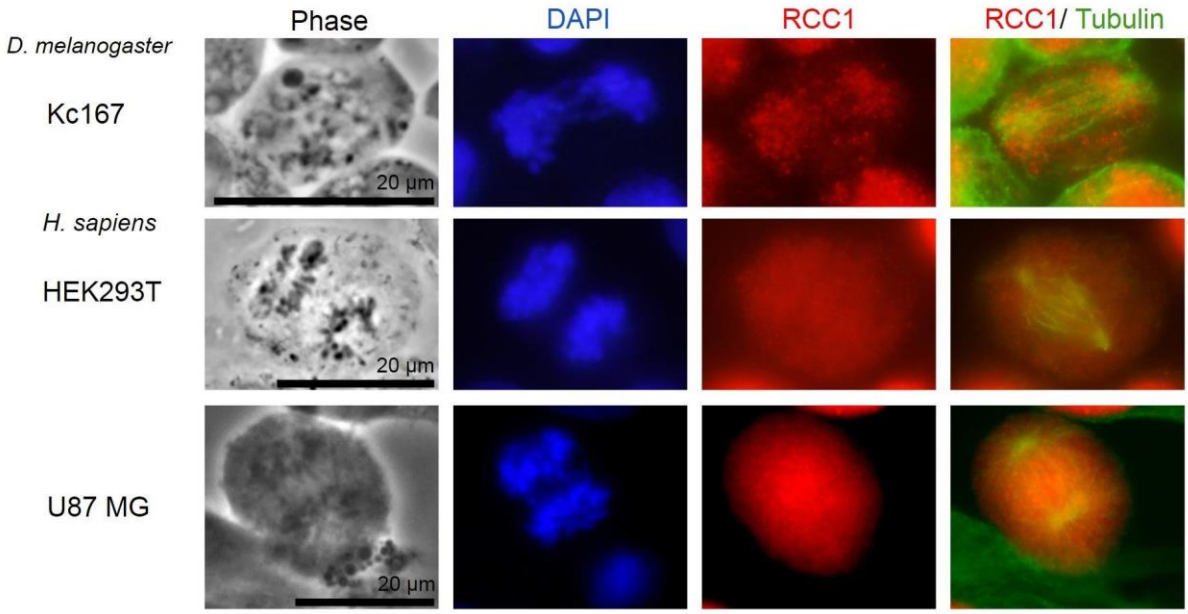


Figure S5. Localization of RCC1 (red) and alphaTub (green) proteins during anaphase. Immunostaining of Kc167 (*D. melanogaster*), HEK293T, and U87MG cells (*H. sapiens*). Fixation with 3.7% formaldehyde.

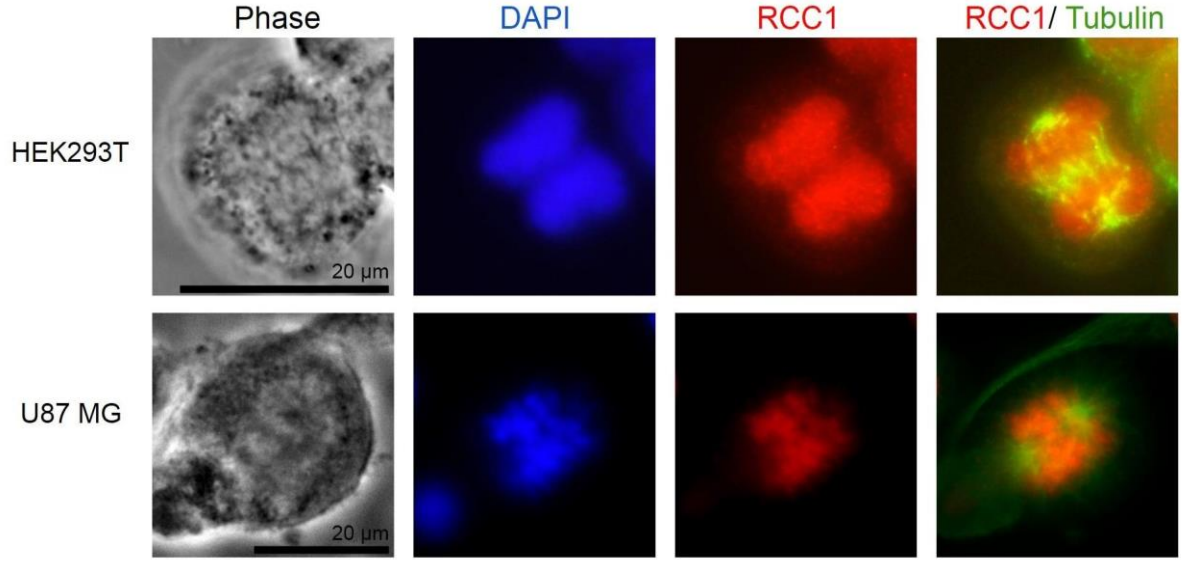


Figure S6. Localization of RCC1 (red) and alphaTub (green) proteins during anaphase. Immunostaining of HEK293T and U87MG cells (*H. sapiens*). Acetone–methanol fixation.

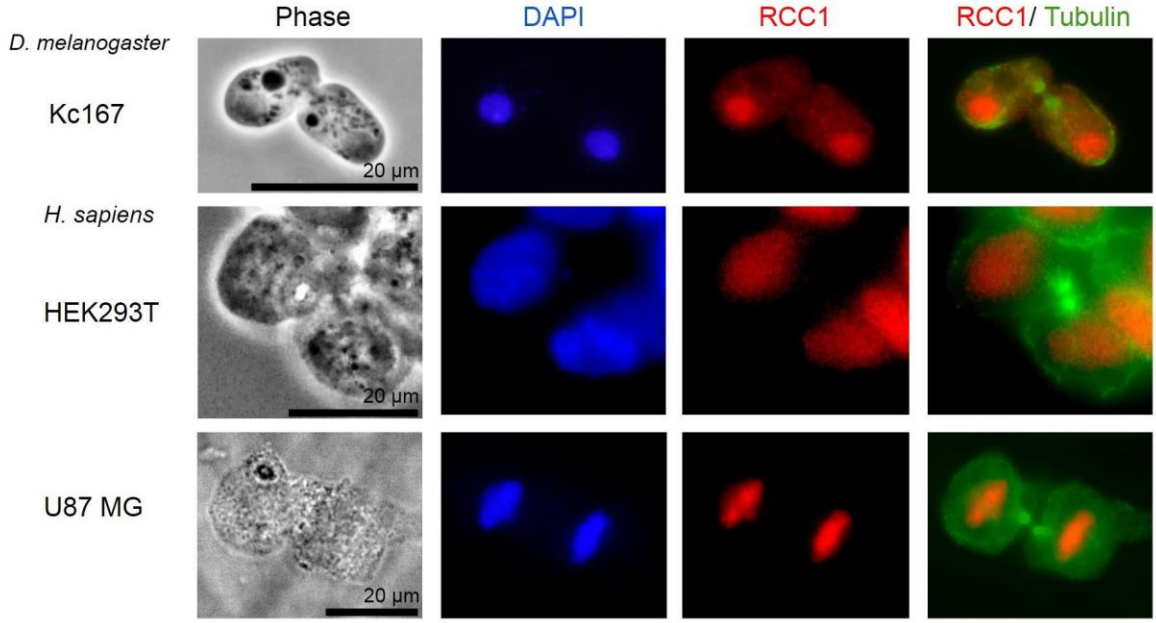


Figure S7. Localization of RCC1 (red) and alphaTub (green) proteins during telophase. Immunostaining of Kc167 (*D. melanogaster*), HEK293T and U87MG cells (*H. sapiens*). Fixation with 3.7% formaldehyde.

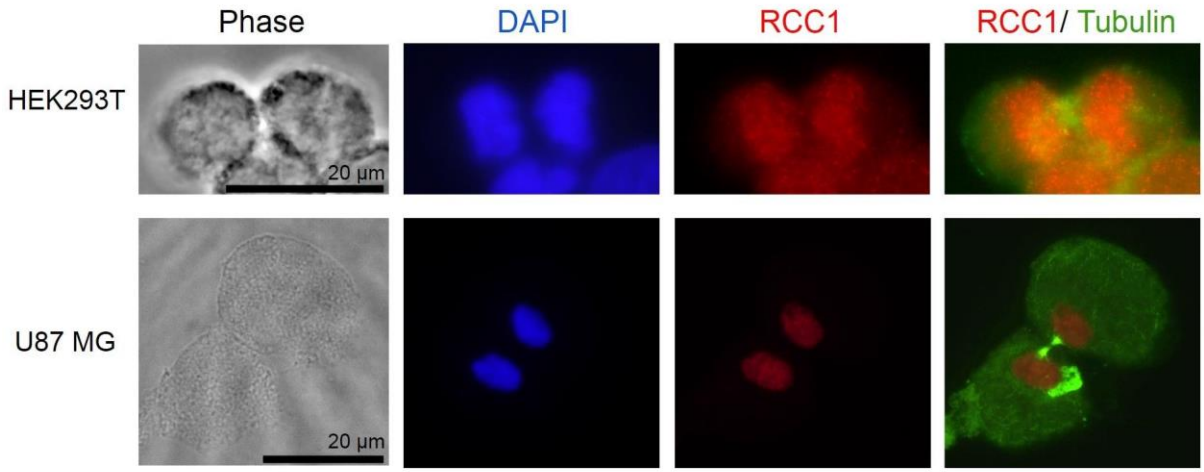


Figure S8. Localization of RCC1 (red) and alphaTub (green) proteins during telophase. Immunostaining of HEK293T and U87MG cells (*H. sapiens*). Acetone–methanol fixation.

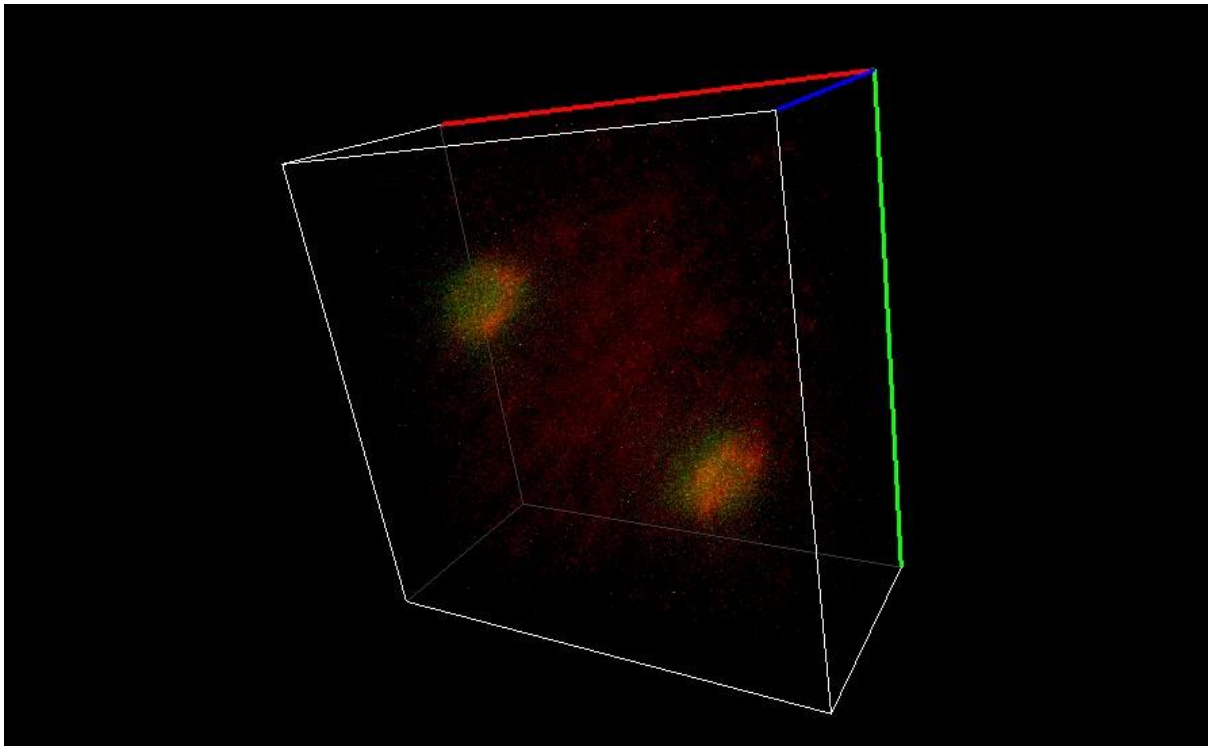


Figure S9. A 3D confocal microscopy image of a U87MG cell (*H. sapiens*) obtained by superposition of z-stacks. Alpha-tubulin and RCC1 immunostaining. Acetone–methanol fixation.

Table S1. Localization of anti-RCC1 antibodies in polytene chromosomes of the *Rif1*[1] and *SuUR_ES, Rif11,Su(var)3-9** No data are available for this strain (three mutations) for chromosomes 4 and 3R.

Chr 4 ***(Rif1[1])***	**Chr X** ***(Rif1[1])***	**Chr X** ***(SuUR_ES, Rif1[1], Su(var)3-9)***	**Chr 2L** ***(Rif1[1])***	**Chr 2L** ***(SuUR_ES, Rif1[1], Su(var)3-9)***	**Chr 2R** ***(Rif1[1])***	**Chr 2R** ***(SuUR_ES, Rif1[1], Su(var)3-9)***	**Chr 3L** ***(Rif1[1])***	**Chr 3L** ***(SuUR_ES, Rif1[1], Su(var)3-9)***	**Chr 3R** ***(Rif1[1])***
101DF	1B1-4	1B	21D1-2		41AE		61C1-2	61C	82EF
102D	1E1-4	1EF	21E1-2		41F1-3		61F1-4		83D1-5
			22A1-3		42A1-2		62A1-2		84A1-2
		3A1-4	22B1-2		42B1-3		62B1-2		84A4-5
	3C1-6		22C1-2		43A1-2	43A	62C1-2		84B1-2
	3DE			22CD	43B1-2	43BC	62D1-2		84D1-4
		4A1-2	22F			44CD		63A1-3	84E1-2
	4B1-4	4B1-2		23A	44F1-3	44F1-2		63E1-6	84EF
	4C1-4	4C1-2		23B		45A1-2	64C1-5		85A1-6
		4D1-2		23C	45C1-4	45C1-2		64C4-5	86A1-8
	4E1-2		23E1-2	23E		45D1-2		64D1-2	86B1-2
	4F1-4			24A		45E1-2		64D1-6	86C1-2

5A1-8	5A	24D1-2		46A1-2	46A1-4	64E1-2	86D1-5
	5C	24E1-2			47A1-2	64F1-2	86E1-8
	5D1-6		24F	47B1-7	47B	65A1-6 65A	87B1-5
	6A1-2	25A1-4		47D1-2	47D1-4	65B1-2 65B	87C1-2
	7B1-2	25E1-2	25E	48AB		65C1-2	87D1-5
7C1-2		25F1-2	25F		48A1-4	65D1-3 65D	87E1-2
	7E1-2	26A1-2	26A		48C1-2	65E1-4 65E	87F1-2
8A1-2	8AB	26CD	26C1-2		48D1-2	65E7-9	88A1-2
8B1-4			26D		48E1-2	65F	88B1-2
	8C1-2	26EF			49A1-2	66A1-2 66A-C	88E1-4
	8E1-4	27A			49D1-3	66A5-9	89A1-4
	9A1-4		28A		49F1-2	66E	89D1-2
9E1-3		28D			50A1-4	67A1-4	89E1-4
	10A1-2	29D1-2	29DE		50C1-4	67C	90A1-2
	10B1-2	29EF		51A1-5	51A	67D9-13	90B1-3
	11A6-9		29F	51C1-2	51C1-4	67D9-10	90DE
11C	11C1-2	30A1-2	30A	51D1-2		67F1-2	91B1-4
11D	11D1-3	30B		51E1-2		68A1-2 68A	91D1-2
	12A1-2		30C		52A	68E1-4	92A1-2
	12D1-2		30D		52C	69D1-2	92B1-2
13A1-2	13A		30E	53A1-2		70A1-5	92C1-2
13B1-4	13B	31A1-2		53B1-2	53BC	70C1-2	92D1-2
13C1-2			31B1-2		54AB	70DE	92E1-2
13D1-2			31C	55A1-4		71A1-2	chr 3R
	13E1-2		31D		55AB	71C1-2	92F1-2
14A1-2	14AB	32A1-2		55C1-5	55C	71F1-2	93A1-5
14B1-4		32B1-2		56AB		72A1-2	93B1-3
14D1-2		32C1-2			56D	72DE	93E1-4
15B1-2		32E1-2	32E	56F1-10	56F1-7	72E1-2	93F9-10
15D1-2		32F1-2	32F		57A1-4	73A1-4	94A1-5
16A1-9	16A	33A1-2			57B1-6	74A1-6	94D1-4
16D1-2			33B1-2		58A1-4	75A1-2	95A1-10
16F1-4		33CD		59A1-3	59A	75C1-2	96A1-2
17A1-5			33D1-4	59C1-2	59C	76A1-4	96C1-2

17B1-2		33F1-2		33F		59D1-4		76EF			96D1-2
17C1-3	17CD	34A1-2		34A1-4		60CD		77A			96E1-2
17D1-2				34D	60E				77E1-4		97A1-6
18A1-3	18A1-2		34EF		60F1-3	60F2-3			78A1-2		97B1-4
18C1-4	18C		35AB					79D1-2			98A1-3
19A1-4	19A		35C						79E1-4		98B1-2
19C1-2		35D1-4		35D					80AC		98C1-2
19E1-4		35E1-2		35E							98D1-2
		35F									98E1-2
				36A							99A1-2
				36CD							99B1-4
		36C1-2									99E1-3
		36D1-2									99F1-2
		36E1-4		36E							100A1-2
		37A1-2		37A							100B1-2
		37D1-2		37D							100B4-5
		38A1-2		38A							100C1-5
		38C1-2		38C							100F1-2
		38E1-2									∑ 63
		39B1-2		39B							92%
			39DE								
		40A1-2		40A							
		40C1-2									
				40AF							

Table S2. Primers used for RT-RCR.

Primers
RCC1_F: AGCTGCAAGAGAAGGTGGTA
RCC1_R: ACACCGTTATTGTCCCGGAAG
B2M_F: CACCCCCACTGAAAAAGATG
B2M_R: ATATTAAAAAGCAAGCAAGCAGAA
TFRC_F: GTCGCTGGTCAGTTCGTGATT
TFRC_R: AGCAGTTGGCTGTTGTACCTCTC
EIF2B1 _F: CTACTCCAGAGTGGTCCTGAGA
EIF2B1 _R: GTTGAGGTGGCAGAGGGCTTTG
MRPL19 _F: CAGGAAGAGGACTTGGAGCTAC
MRPL19 _R: GCTATCATCCAGCCGTTTCTCTA
CTBP1 _F: TGAGCAGCAAGCTCAGTCCAGA
CTBP1_R: TCCGTTCTCAGTTGCCTGTGGA
TBP_F: TGTATCCACAGTGAATCTTGGTTG
TBP_R: GGTTCGTGGCTCTCTTATCCTC

Table S3 Fixation with 3.8% formaldehyde

	Kc167	HEK293T	U87MG
Prophase	7	78	66
Metaphase	27	13	199
Anaphase	11	38	23
Telophase	14	12	155

Table S4 Fixation with acetone and methanol

	HEK293T	U87MG
Prophase	29	56
Metaphase	26	132
Anaphase	14	10
Telophase	15	124