Gavet and Pines, http://www.jcb.org/cgi/content/full/jcb.200909144/DC1

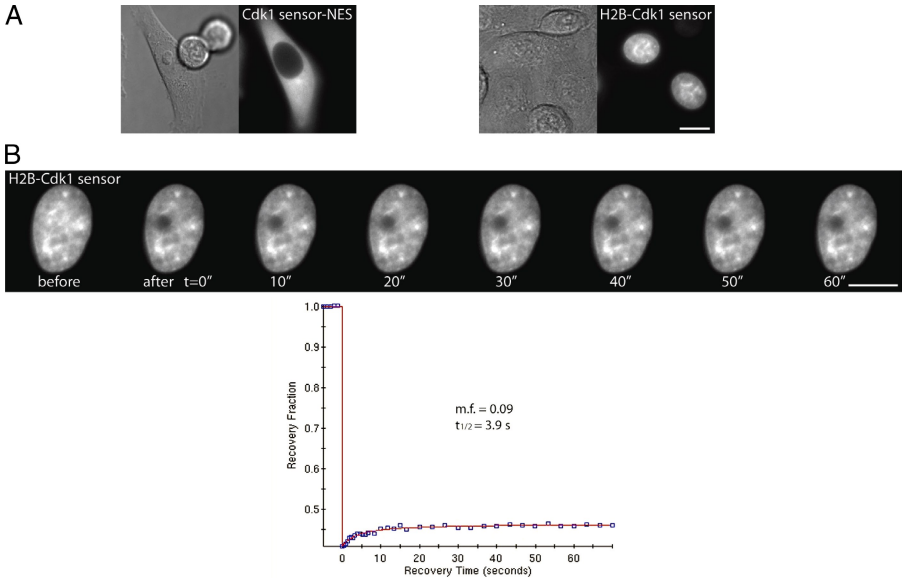


Figure S1. **The nuclear targeted FRET sensor is stably associated with chromatin.** (A) Fluorescence and DIC images of cells expressing either the cytoplasmic (NES) or nuclear targeted (histone H2B) cyclin B1–Cdk1 FRET sensor. (B) FRAP experiment showing the stable association of H2B–cyclin B1–Cdk1 FRET sensor with chromatin (n = 6). Images were taken before and immediately after bleaching at the indicated times. Fluorescence images (top) and quantification of the fluorescence recovery in the bleached area (bottom) are shown with the calculated mobile fraction (mf) and half-life of recovery. Bars, 10 µm.

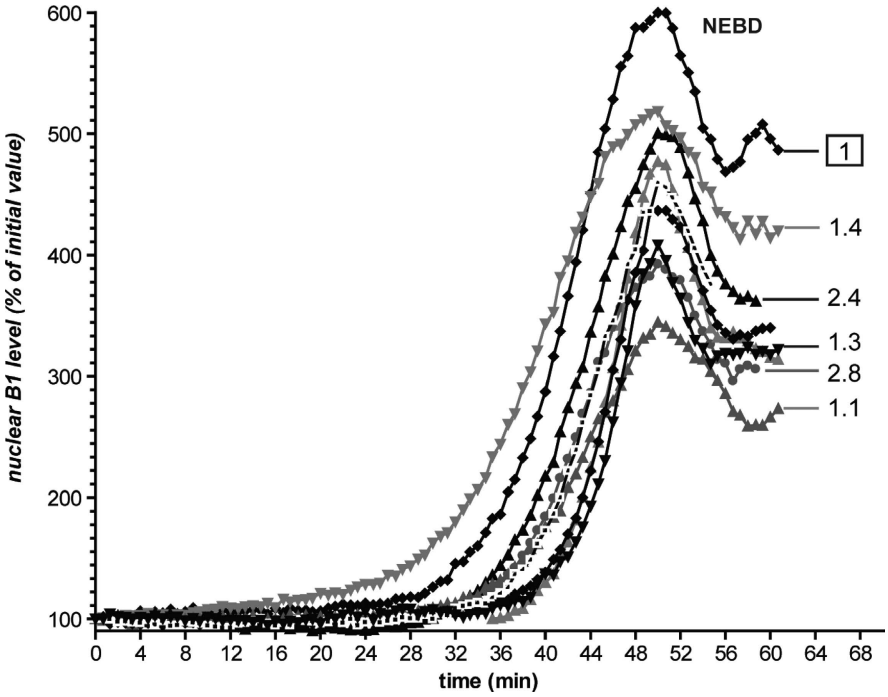


Figure S2. **Kinetics of cyclin B1 nuclear accumulation is independent of the expression level.** The nuclear accumulation of cyclin B1–GFP was quantified on optical sections in different cells entering prophase (n = 9). To quantify the expression level of cyclin B1, the mean GFP signal in a region of the cytoplasm was determined for each cell in G2 (at t = 0) and normalized to the lowest expressing cell. For clarity, only six values are displayed on the right. For clarity, only six values are displayed on the right, and the values for only six cells are plotted. Note that the timing and rate of cyclin B1 nuclear accumulation are independent of the expression level.

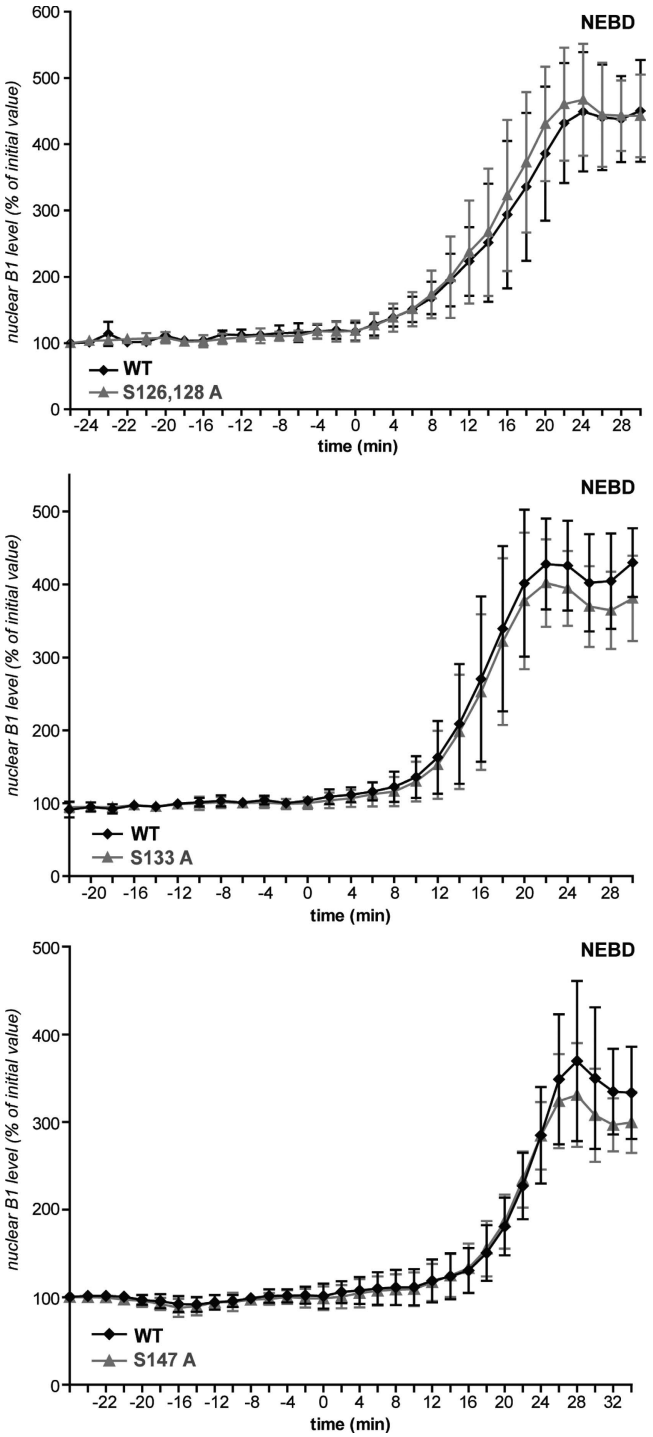


Figure S3. **Nuclear accumulation of cyclin B1 in prophase is independent of its phosphorylation on Ser126, 128, 133, and 147.** Nuclear accumulation of cyclin B1 was assayed in cells coexpressing wild-type (WT) cyclin B1–mCherry and one of the following mutants: Ser126– and 128A–, Ser133A–, or Ser147A–cyclin B1–GFP. Mean curves ± SEM of quantifications in different cells are displayed for each experiment (n = 4, 4, and 6, respectively).

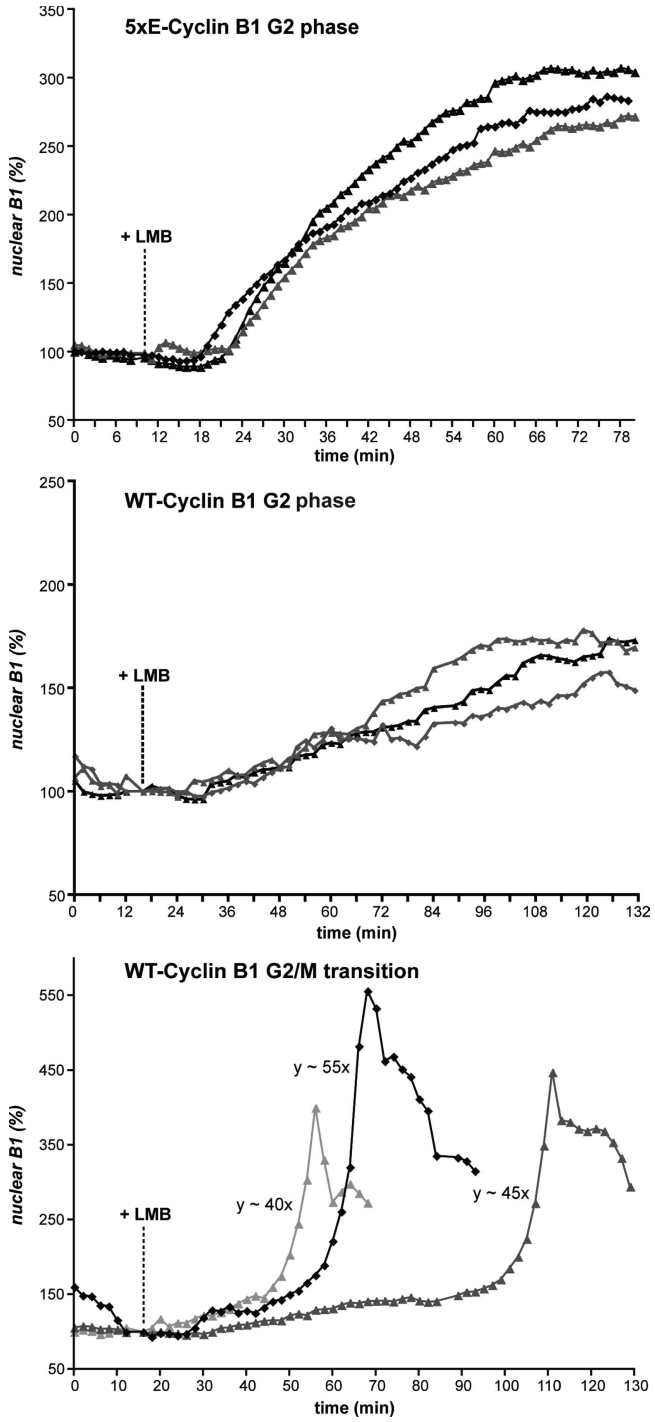


Figure S4. **Cyclin B1 nuclear import rate increases significantly at mitotic entry.** Cells expressing 5xE (top) or wild-type (WT; middle and bottom) cyclin B1 were recorded, and the nuclear import was quantified after adding 20 nM LMB to cells in G2 phase. Note the sudden increase of the wild-type cyclin B1 import rate when cells enter in mitosis. The results from three different cells are shown for each experiment.

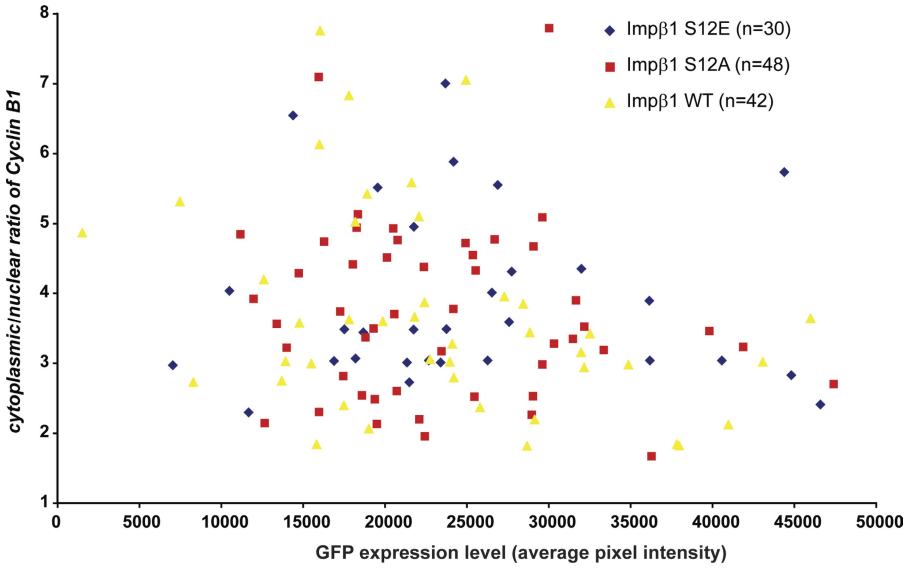
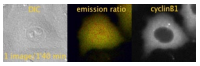
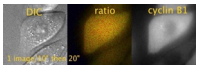


Figure S5. **The nuclear/cytoplasmic distribution of cyclin B1 in interphase is not affected by overexpression of wild-type or phosphorylation mutants of importin β1.** Cells coexpressing wild-type (WT) cyclin B1–mCherry and untagged wild-type, Ser12A, or Ser12E mutants of importin β1 (imp β1) expressed from a vector with GFP under the control of an IRES (p-importin β1–IRES2-GFP vectors) were assayed. The nuclear/cytoplasmic ratio of cyclin B1 and the expression level of GFP were quantified on optical sections of asynchronous interphase cells and are plotted against each other. The number of cells analyzed in each condition is indicated.

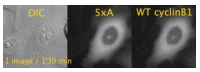


Video 1. **HeLa cell expressing FRET sensor and cyclin B1 entering mitosis.** HeLa cells cotransfected with the FRET sensor and cyclin B1–mCherry constructs were recorded using a microscope (Deltavision; Applied Precision) with a frequency of one frame every 1 min 40 s. Intensity-modulated display of the emission ratio and cyclin B1 level are displayed at middle and right, respectively.

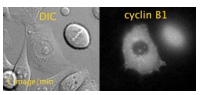


Video 2. **HeLa cell expressing FRET sensor and cyclin B1 treated with a Cdk inhibitor during prophase.** HeLa cells cotransfected with the FRET sensor and cyclin B1–mCherry were recorded using a microscope (Deltavision; Applied Precision) with a frequency of one frame every 10 s and then every 20 s (at t ≈ 14 min). 300 nM Cdk1/2 inhibitor III was added in prophase at t ≈ 4 min. Intensity-modulated display of the emission ratio and cyclin B1 level are displayed at middle and right, respectively.

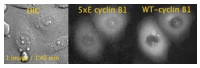
Video 3. **HeLa cell expressing FRET sensor targeted to both the nucleus and the cytoplasm undergoing mitosis.** HeLa cells cotransfected with the cytoplasmic and nuclear targeted FRET sensor were recorded using a microscope (Deltavision; Applied Precision) with a frequency of one frame every 1 min 40 s. The acceptor emission (inverted greyscale; middle) shows the distribution of the sensors, and the emission ratio (intensity-modulated display; right) shows the activity of cyclin B1–Cdk1.



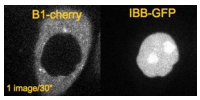
Video 4. **HeLa cell expressing the 5xA Ala mutant and wild-type cyclin B1 entering mitosis.** HeLa cells cotransfected with 5xA–cyclin B1–GFP (middle) and wild-type (WT) cyclin B1–mCherry (right) were recorded using a microscope (Deltavision; Applied Precision) with a frequency of one frame every 1 min 30 s.



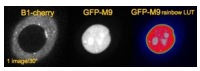
Video 5. **HeLa cell expressing wild-type cyclin B1 entering mitosis and treated with the Plk inhibitor BI 2536.** HeLa cells transfected with wild-type cyclin B1–mCherry were recorded using a microscope (Deltavision; Applied Precision) with a frequency of one frame per minute. 100 nM of the Plk inhibitor BI 2536 was added at t ≈ 10 min.



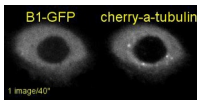
Video 6. **HeLa cell expressing the 5xE glutamic acid mutant and wild-type cyclin B1 entering mitosis and treated with a Cdk inhibitor.** HeLa cells cotransfected with 5xE cyclin B1–GFP (middle) and wild-type (WT) cyclin B1–mCherry (right) were recorded using a microscope (Deltavision; Applied Precision) with a frequency of one frame every 1 min 40 s. 300 nM Cdk inhibitor III was added at t ≈ 10 min.



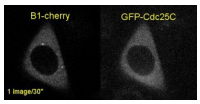
Video 7. **HeLa cell expressing wild-type cyclin B1–mCherry and IBB-GFP entering mitosis.** HeLa cells cotransfected with wild-type cyclin B1–mCherry (left) and IBB-GFP (right) were recorded using a spinning-disk microscope (Intelligent Imaging Innovations) with a frequency of one frame every 30 s.



Video 8. **HeLa cell expressing wild-type cyclin B1–mCherry and GFP-M9 entering mitosis.** HeLa cells cotransfected with wild-type cyclin B1–mCherry (left) and GFP-M9 (middle and right) were recorded using a spinning-disk microscope with a frequency of one frame every 30 s.



Video 9. **HeLa cell expressing wild-type cyclin B1–GFP and mCherry–α-tubulin entering mitosis.** HeLa cells cotransfected with wild-type cyclin B1–GFP (left) and mCherry–α-tubulin (right) were recorded using a spinning-disk microscope with a frequency of one frame every 40 s.



Video 10. **HeLa cell expressing wild-type cyclin B1–mCherry and GFP-Cdc25C entering mitosis.** HeLa cells cotransfected with the wild-type cyclin B1–mCherry (left) and GFP-Cdc25C (right) were recorded using a spinning-disk microscope with a frequency of one frame every 30 s.

Supplemental data

Ypet Polo box domain **flexible linker phosphorylation site** **cerulean** Flag tag
Purple indicates a restriction site.

Cyclin B1–Cdk1 FRET sensor:

GCTAGCGCT**ACCGGT**ATGGTGAGCAAAGGCGAAGAGCTGTTCACCGGCGTGGTGCC
CATCCTGGTGGAGCTGGACGGCGACGTGAACGGCCACAAGTTCAGCGTGAGCGGCG
AGGGCGAGGGCGACGCCACCTACGGCAAGCTGACCCTGAAGCTGCTGTGCACCACC
GGCAAGCTGCCCGTGCCCTGGCCCACCCTGGTGACCACCCTGGGCTACGGCGTGCAG
TGCTTCGCCCGGTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGAGCGCCATG
CCCGAGGGCTACGTGCAGGAGCGGACCATCTTCTTCAAGGACGACGGCAACTACAA
GACCCGGGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGGATCGAGCTGA
AGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGCCACAAGCTGGAGTACAAC
TACAACAGCCACAACGTGTACATCACCGCCGACAAGCAGAAGAACGGCATCAAGGC
CAACTTCAAGATCCGGCACAACATCGAGGACGGCGGCGTGCAGCTGGCCGACCACT
ACCAGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCGACAACCACTACC
TGAGCTACCAGAGCGCCCTGTTCAAGGACCCCAACGAGAAGCGGGACCACATGGTG
CTGCTGGAGTTCCTGACCGCCGCCGGCATCACCGAGGGCATGAACGAGCTCTATAAG
AGATCTCACCTCAGTGACATGCTGCAGCAGCTGCACAGTGTCAATGCCTCCAAGCCC
TCGGAGCGTGGGCTGGTCAGGCAAGAGGAGGCTGAGGATCCTGCCTGCATCCCCATC
TTCTGGGTCAGCAAGTGGGTGGACTATTCGGACAAGTACGGCCTTGGGTATCAGCTC
TGTGATAACAGCGTGGGGGTGCTCTTCAATGACTCAACACGCCTCATCCTCTACAAT
GATGGTGACAGCCTGCAGTACATAGAGCGTGACGGCACTGAGTCCTACCTCACCGTG
AGTTCCCATCCCAACTCCTTGATGAAGAAGATCACCCTCCTTAAATATTTCCGCAATT
ACATGAGCGAGCACTTGCTGAAGGCAGGTGCCAACATCACGCCGCGCGAAGGTGAT
GAGCTCGCCCGGCTGCCCTACCTACGGACCTGGTTCCGCACCCGCAGCGCCATCATC
CTGCACCTCAGCAACGGCAGCGTGCAGATCAACTTCTTCCAGGATCACACCAAGCTC
ATCTTGTGCCCACTGATGGCAGCCGTGACCTACATCGACGAGAAGCGGGACTTCCGC
ACATACCGCCTGAGTCTCCTGGAGGAGTACGGCTGCTGCAAGGAGCTGGCCAGCCGG
CTCCGCTACGCCCGCACTATGGTGGACAAGCTGCTGAGC**GGCGGCACAGGCGGCA**
CAGGCGGCACAGGCGGCACAGGCGGTACCCCTGAGCCTATTTTGGTTGATACTTC
CTCTCCAAGCCCAATGGAAACA**CTCGAG**ATGGTGAGCAAGGGCGAGGAGCTGTTCA
CCGGGGTGGTGCCCATCCTGGTCGAGCTGGACGGCGACGTAAACGGCCACAAGTTCA
GCGTGTCCGGCGAGGGCGAGGGCGATGCCACCTACGGCAAGCTGACCCTGAAGTTC
ATCTGCACCACCGGCAAGCTGCCCGTGCCCTGGCCCACCCTCGTGACCACCCTGACC
TGGGGCGTGCAGTGCTTCGCCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTC
AAGTCCGCCATGCCCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGAC
GGCAACTACAAGACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCG
CATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGC
TGGAGTACAACGCCATCAGCGACAACGTCTATATCACCGCCGACAAGCAGAAGAAC
GGCATCAAGGCCAACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGCAGCT
CGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGCTGCCCGA
CAACCACTACCTGAGCACCCAGTCCAAGCTGAGCAAAGACCCCAACGAGAAGCGCG

ATCACATGGTCCTGCTGGAGTTCGTGACCGCCGCCGGGATCACTCTCGGCATGGACG
AGCTGTACAAGGATTACAAG**GATGACGACGATAAG**TAA**GGATCC**

Cyclin B1–Cdk1 FRET sensor NES:

…CCATCGGCGACGGCCCCGTGCTGCTGCCCGACAACCACTACCTGAGCACCCAGTC
CAAGCTGAGCAAAGACCCCAACGAGAAGCGCGATCACATGGTCCTGCTGGAGTTCG
TGACCGCCGCCGGGATCACTCTCGGCATGGACGAGCTGTACAAGGGCGGCGGC**TTG**
CCCCCCTTGGAGCGCTTGACCTTGGGCTAA**GGATCC**

H2B flexible linker **cyclin B1–Cdk1 FRET sensor:**

GCTAGCATGCCAGAGCCAGCGAAGTCTGCTCCCGCCCCGAAAAAGGGCTCCAA
GAAGGCGGTGACTAAGGCGCAGAAGAAAGGCGGCAAGAAGCGCAAGCGCAGC
CGCAAGGAGAGCTATTCCATCTATGTGTACAAGGTTCTGAAGCAGGTCCACCC
TGACACCGGCATTTCGTCCAAGGCCATGGGCATCATGAATTCGTTTGTGAACG
ACATTTTCGAGCGCATCGCAGGTGAGGCTTCCCGCCTGGCGCATTACAACAAG
CGCTCGACCATCACCTCCAGGGAGATCCAGACGGCCGTGCGCCTGCTGCTGCC
TGGGGAGTTGGCCAAGCACGCCGTGTCCGAGGGTACTAAGGCCATCACCAAGT
ACACCAGCGCTAAGGGAGGAACAGGAGGAACAGGAGGAACAGGAGGA**ACCGGT**A
TGGTGAGCAAAGGCGAAGA…

Cyclin B1–mCherry:

ATGGCGCTCCGAGTCACCAGGAACTCGAAAATTAATGCTGAAAATAAGGCGAA
GATCAACATGGCAGGCGCAAAGCGCGTTCCTACGGCCCCTGCTGCAACCTCCA
AGCCCGGACTGAGGCCAAGAACAGCTCTTGGGGACATTGGTAACAAAGTCAGT
GAACAACTGCAGGCCAAAATGCCTATGAAGAAGGAAGCAAAACCTTCAGCTAC
TGGAAAAGTCATTGATAAAAAACTACCAAAACCTCTTGAAAAGGTACCTATGCT
GGTGCCAGTGCCAGTGTCTGAGCCAGTGCCAGAGCCAGAACCTGAGCCAGAAC
CTGAGCCTGTTAAAGAAGAAAAACTTTCGCCTGAGCCTATTTTGGTTGATACTG
CCTCTCCAAGCCCAATGGAAACATCTGGATGTGCCCCTGCAGAAGAAGACCTG
TGTCAGGCTTTCTCTGATGTAATTCTTGCAGTAAATGATGTGGATGCAGAAGAT
GGAGCTGATCCAAACCTTTGTAGTGAATATGTGAAAGATATTTATGCTTATCTG
AGACAACTTGAGGAAGAGCAAGCAGTCAGACCAAAATACCTACTGGGTCGGGA
AGTCACTGGAAACATGAGAGCCATCCTAATTGACTGGCTAGTACAGGTTCAAAT
GAAATTCAGGTTGTTGCAGGAGACCATGTACATGACTGTCTCCATTATTGATCG
GTTCATGCAGAATAATTGTGTGCCCAAGAAGATGCTGCAGCTGGTTGGTGTCA
CTGCCATGTTTATTGCAAGCAAATATGAAGAAATGTACCCTCCAGAAATTGGTG
ACTTTGCTTTTGTGACTGACAACACTTATACTAAGCACCAAATCAGACAGATGG
AAATGAAGATTCTAAGAGCTTTAAACTTTGGTCTGGGTCGGCCTCTACCTTTGC
ACTTCCTTCGGAGAGCATCTAAGATTGGAGAGGTTGATGTCGAGCAACATACTT
TGGCCAAATACCTGATGGAACTAACTATGTTGGACTATGACATGGTGCACTTTC
CTCCTTCTCAAATTGCAGCAGGAGCTTTTTGCTTAGCACTGAAAATTCTGGATA
ATGGTGAATGGACACCAACTCTACAACATTACCTGTCATATACTGAAGAATCTC
TTCTTCCAGTTATGCAGCACCTGGCTAAGAATGTAGTCATGGTAAATCAAGGAC

TTACAAAGCACATGACTGTCAAGAACAAGTATGCCACATCGAAGCATGCTAAGA
TCAGCACTCTACCACAGCTGAATTCTGCACTAGTTCAAGATTTAGCCAAGGCTG
TGGCAAAGGTTCTAGA**GGATCCACCGGT**CGCCACCATG**ATGGTGAGCAAGGGCG**
AGGAGGATAACATGGCCATCATCAAGGAGTTCATGCGCTTCAAGGTGCACATG
GAGGGCTCCGTGAACGGCCACGAGTTCGAGATCGAGGGCGAGGGCGAGGGCC
GCCCCTACGAGGGCACCCAGACCGCCAAGCTGAAGGTGACCAAGGGTGGCCC
CCTGCCCTTCGCCTGGGACATCCTGTCCCCTCAGTTCATGTACGGCTCCAAGGC
CTACGTGAAGCACCCCGCCGACATCCCCGACTACTTGAAGCTGTCCTTCCCCG
AGGGCTTCAAGTGGGAGCGCGTGATGAACTTCGAGGACGGCGGCGTGGTGAC
CGTGACCCAGGACTCCTCCCTGCAGGACGGCGAGTTCATCTACAAGGTGAAGC
TGCGCGGCACCAACTTCCCCTCCGACGGCCCCGTAATGCAGAAGAAGACCATG
GGCTGGGAGGCCTCCTCCGAGCGGATGTACCCCGAGGACGGCGCCCTGAAGG
GCGAGATCAAGCAGAGGCTGAAGCTGAAGGACGGCGGCCACTACGACGCTGA
GGTCAAGACCACCTACAAGGCCAAGAAGCCCGTGCAGCTGCCCGGCGCCTACA
ACGTCAACATCAAGTTGGACATCACCTCCCACAACGAGGACTACACCATCGTG
GAACAGTACGAACGCGCCGAGGGCCGCCACTCCACCGGCGGCATGGACGAGC
TGTACAAG<u>**TAA**</u>

<u>mCherry–α-tubulin:</u>

ATGGTGAGCAAGGGCGAGGAGGATAACATGGCCATCATCAAGGAGTTCATGCG
CTTCAAGGTGCACATGGAGGGCTCCGTGAACGGCCACGAGTTCGAGATCGAGG
GCGAGGGCGAGGGCCGCCCCTACGAGGGCACCCAGACCGCCAAGCTGAAGGT
GACCAAGGGTGGCCCCCTGCCCTTCGCCTGGGACATCCTGTCCCCTCAGTTCA
TGTACGGCTCCAAGGCCTACGTGAAGCACCCCGCCGACATCCCCGACTACTTG
AAGCTGTCCTTCCCCGAGGGCTTCAAGTGGGAGCGCGTGATGAACTTCGAGGA
CGGCGGCGTGGTGACCGTGACCCAGGACTCCTCCCTGCAGGACGGCGAGTTCA
TCTACAAGGTGAAGCTGCGCGGCACCAACTTCCCCTCCGACGGCCCCGTAATG
CAGAAGAAGACCATGGGCTGGGAGGCCTCCTCCGAGCGGATGTACCCCGAGG
ACGGCGCCCTGAAGGGCGAGATCAAGCAGAGGCTGAAGCTGAAGGACGGCGG
CCACTACGACGCTGAGGTCAAGACCACCTACAAGGCCAAGAAGCCCGTGCAGC
TGCCCGGCGCCTACAACGTCAACATCAAGTTGGACATCACCTCCCACAACGAG
GACTACACCATCGTGGAACAGTACGAACGCGCCGAGGGCCGCCACTCCACCGG
CGGCATGGACGAGCTGTACAAGGGAT**CTCGAG**TG**CGTGAGTGCATCTCCATCC**
ACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGG
GGGAGGAGATGACTCCTTCAACACCTTCTTCAGTGAGACGGGCGCTGGCAAGC
ACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGTT
CGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAA
GGAAGATGCTGCCAATAACTATGCCCGAGGGCACTACACCATTGGCAAGGAGA
TCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCAGTGCACCGGT
CTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTC
ACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG
GAGTTCTCCATTTACCCAGCACCCCAGGTTTCCACAGCTGTAGTTGAGCCCTAC
AACTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGTGCCTTCATG
GTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCG
CCCAACCTACACTAACCTTAACCGCCTTATTAGCCAGATTGTGTCCTCCATCAC

TGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCCAGAC
CAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGT
CATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACCAA
TGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTA
AATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGTCA
ATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGT
GCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCT
GGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCAC
AGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATG
CCAAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAG
TTTTCAGAGGCCCGTGAAGATATGGCTGCCCTTGAGAAGGATTATGAGGAGGT
TGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATAC<u>TAA</u>

<u>pIBB-GFP:</u>

ATTAAAGAGGAGAAAT**TAAGCATGCGCACGAACGAGAATGCTAATACACCAGCT**
GCCCGTCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCG
TCACAGAATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGA
TGCTGAAGAGGAGAAATGTAAGCTCATTTCCTGATGATGCTACTTCTCCC<u>ATGA</u>
ACAGCAAGGGCGAGGAGCTGTTCACCGGGGTGGTGCCCATCCTGGTCGAGCTG
GACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGCGAGGGCG
ATGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGGCAAGCTG
CCCGTGCCCTGGCCCACCCTCGTGACCACCCTGACCTACGGCGTGCAGTGCTT
CAGCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCCGCCATGC
CCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGGCAACTAC
AAGACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACCGCATCGA
GCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCACAAGCTGG
AGTACAACTACAACAGCCACAACGTCTATATCATGGCCGACAAGCAGAAGAAC
GGCATCAAGGTGAACTTCAAGATCCGCCACAACATCGAGGACGGCAGCGTGCA
GCTCGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCCCGTGCTGC
TGCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTGAGCAAAGACCCCAAC
GAGAAGCGCGATCACATGGTCCTGCTGGAGTTCGTGACCGCCGCCGGGATCAC
TCTCGGCATGGACGAGCTGTACAAGTAA

<u>pEGFP-M9:</u>

ACC**ATGGTGAGCAAGGGCGAGGAGCTGTTCACCGGGGTGGTGCCCATCCTGGT**
CGAGCTGGACGGCGACGTAAACGGCCACAAGTTCAGCGTGTCCGGCGAGGGC
GAGGGCGATGCCACCTACGGCAAGCTGACCCTGAAGTTCATCTGCACCACCGG
CAAGCTGCCCGTGCCCTGGCCCACCCTCGTGACCACCCTGACCTACGGCGTGC
AGTGCTTCAGCCGCTACCCCGACCACATGAAGCAGCACGACTTCTTCAAGTCC
GCCATGCCCGAAGGCTACGTCCAGGAGCGCACCATCTTCTTCAAGGACGACGG
CAACTACAAGACCCGCGCCGAGGTGAAGTTCGAGGGCGACACCCTGGTGAACC
GCATCGAGCTGAAGGGCATCGACTTCAAGGAGGACGGCAACATCCTGGGGCAC
AAGCTGGAGTACAACTACAACAGCCACAACGTCTATATCATGGCCGACAAGCA
GAAGAACGGCATCAAGGTGAACTTCAAGATCCGCCACAACATCGAGGACGGCA

GCGTGCAGCTCGCCGACCACTACCAGCAGAACACCCCCATCGGCGACGGCCCC
GTGCTGCTGCCCGACAACCACTACCTGAGCACCCAGTCCGCCCTGAGCAAAGA
CCCCAACGAGAAGCGCGATCACATGGTCCTGCTGGAGTTCGTGACCGCCGCCG
GGATCACTCTCGGCATGGACGAGCTGTACAAGAGATCCAGATCCAGATCT**AATC**
AGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATTTTGGAGGCAGAAGCTCT
GGCCCCTATGGCGGTGGAGGCCAATACTTTGCAAAACCACGAAACCAAGGTGG
CTATGGCGGTTCCAGCAGCAGCAGTAGCTATGGCAGTGGCAGAAGATTT