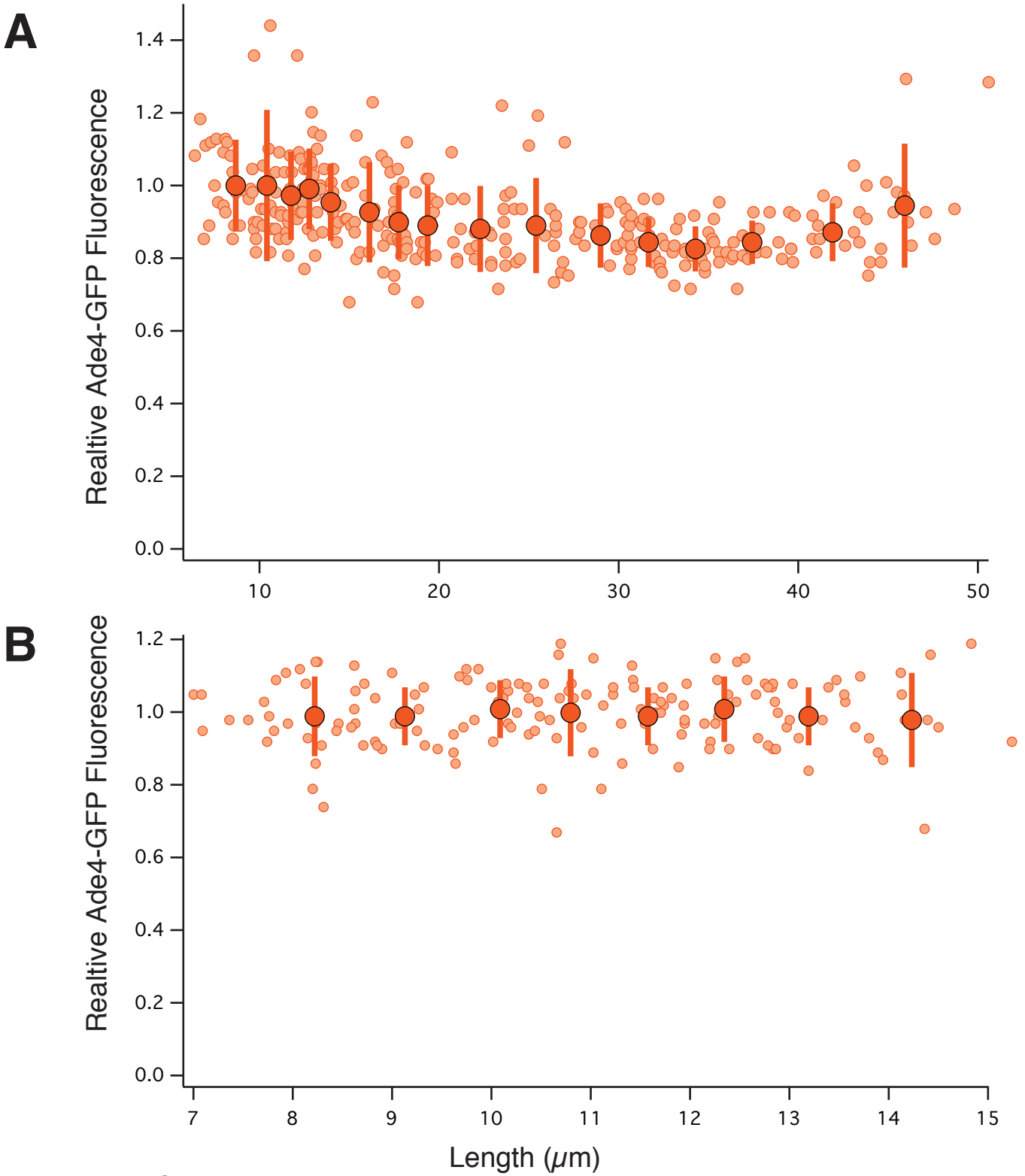

Figure S1. Related to Figure 1:
Ade4 maintains a constant concentration, independent of size or cell cycle.
*(***A)** *cdc2-ts* cells expressing Ade4-GFP (yFS982) were shifted to the restrictive temperature of 35˚C and sampled at 0, 2, 4 and 6 hours. Ade4-GFP signal and cell length were measured microscopically in individual cells. The concentration of Ade4 was calculated as the mean cellular fluorescence. The mean signals from 25-cell bins are shown in large opaque symbols with error bars depicting standard deviation.
(B) The same cells (yFS982) were grown at the permissive tempurature of 25˚C. Cells were imaged and analyzed in **(A)**. The lack of change in the Ade4-GFP signal as cells grow from 7 to 15 μm shows that Ade4 expression does not vary with cell-cycle progression.

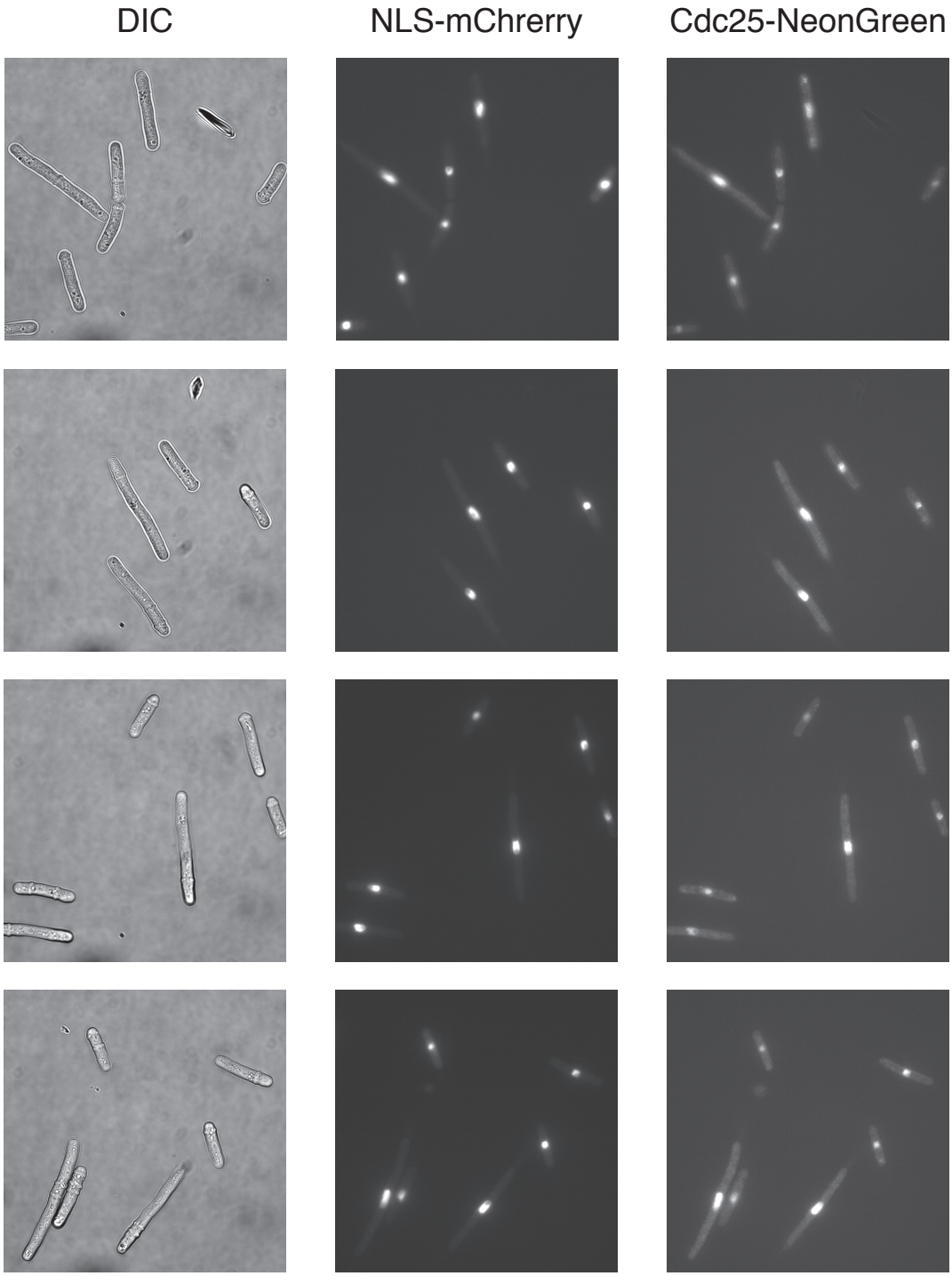

Figure S2. Related to Figure 1:
Images of fluorescent cells quantitated in Figure 1D.
cdc2-ts cells expressing Cdc25-NeonGreen and GST-NLS-mCherry (yFS978) were shifted to the restrictive temperature of 35˚C for 2, 4 or 6 hours, mixed and imaged by DIC and wide-field epifluorescence microscopy. To examine if nuclear localization changes with size, we measured the ratio of nuclear to cytoplasmic signal. There is only a modest difference between the ratio in the smallest 20% of cells (2.88±0.34) and the largest 20% of cells (3.31±0.27) suggesting that the degree of nuclear localization is largely size independent..

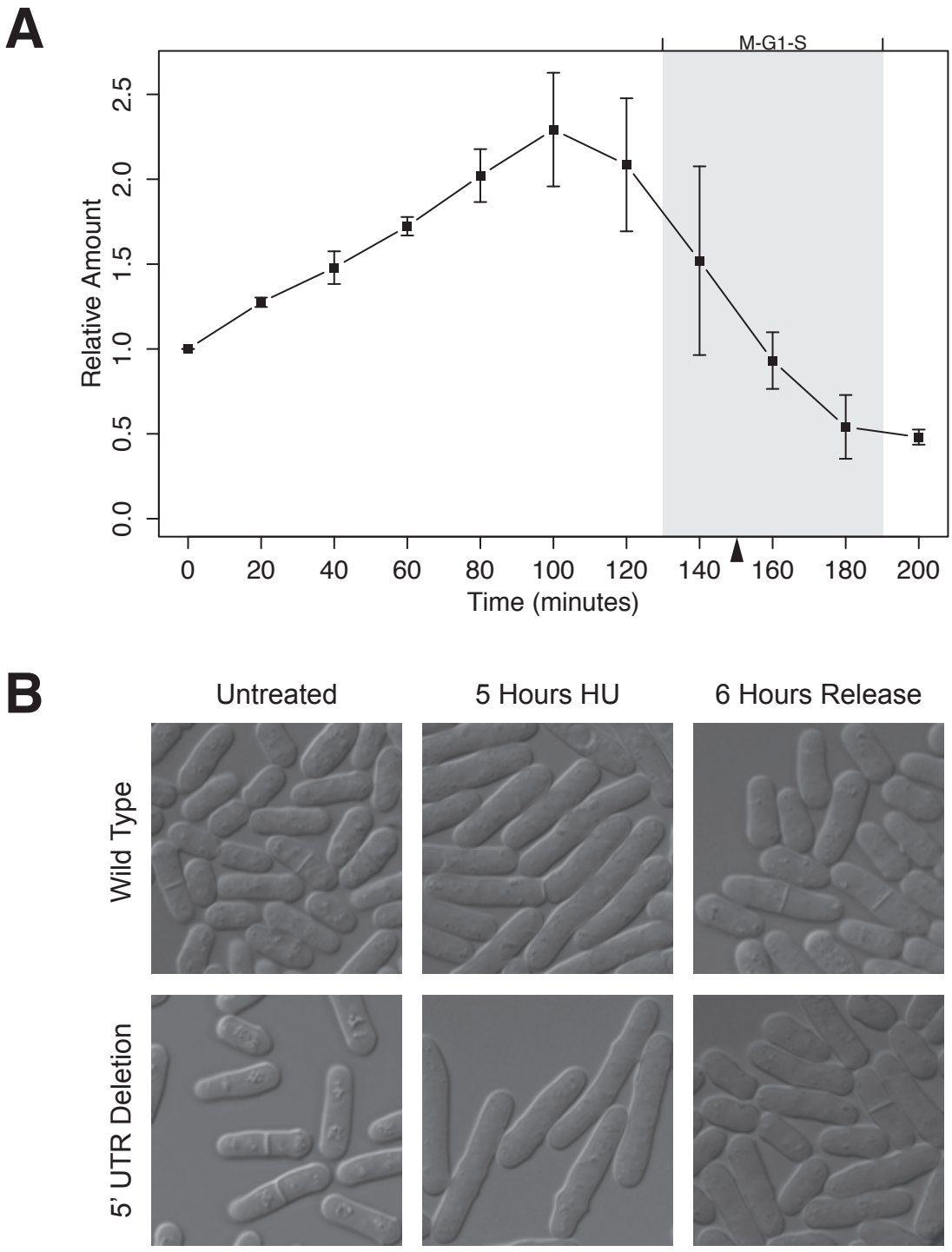

Figure S3. Related to Figure 1:
Size-dependent expression of Cdc25 does not require its 5' UTR.
(A). Cells deleted for the *cdc25* 5'-UTR and taged with luciferase (yFS885) were analyzed as in Figure 1A.
(B). Wild-type (yFS105) and cells deleted for the *cdc25* 5'-UTR and taged with luciferase (yFS885) were arrested for 5 hours in 10 mM HU and released for 6 hours. Both strains rapidly return to their normal cell size after G2 elongation, demonstrating size homeostasis.

Table S1. Oligonucleotides used for PCR (Related to STAR Methods)

DK6	TTGGCCAAAGTGTGTTAGCTTCCCCAGACGTTAATGATTCTCCTACTGCCATGCATTCCCTCTCTACAC TTAGAAGATTTCGGATCCCCGGGTTAATTAA
DK7	AGAAAAAACTTAGGTTTAGAAAGTTGAATATATAAGAGTATACTTCAGGCTAGGTAAAGTATTGAGT CAGCCTAAAATCAGAATTCGAGCTCGTTTAAAC
DK26	TTGCAGAAGATGAGGAACGTGAAGCTCCCGAAGACATTTCTCTCCATAACACACATTCAGATGTTACT TTTGATTTTGTTCGGATCCCCGGGTTAATTAA
DK27	GATTAGAGCATCAATCTAGACAAAGTAAATGGAGGATTGGTTATTATAATAAAGCACTAAGCATTGA ATAAATTGGGGAAGAATTCGAGCTCGTTTAAAC
NR186	CCATAATTTATGAAGGTATTCATGGATCTTCTTCTAACCCCCAGGGTGATCAAATGATGGAAGATTGG CAGGTGAATGTTCGGATCCCCGGGTTAATTAA
NR187	GCTAAACAGATTTTGGAAGCCATTCCCTTATTTCGCAATTTCGCAGTAATAAACATTGAGAACAAGAG TCTCTAAAAGGTGAATTCGAGCTCGTTTAAAC
MM6	AGAAAAAACTTAGGTTTAGAAAGTTGAATATATAAGAGTATACTTCAGGCTAGGTAAAGTATTGAGT CAGCCTAAAATCACGCACTTAACTTCGCATCTG
MM41	TTGGCCAAAGTGTGTTAGCTTCCCCAGACGTTAATGATTCTCCTACTGCCATGCATTCCCTCTCTACAC TTAGAAGATTTCGGATCCCCGGGTTAATTAACAT
MO294	GATTAGAGCATCAATCTAGACAAAGTAAATGGAGGATTGGTTATTATAATAAAGCACTAAGCATTGA ATAAATTGGGGAATTATTCCTTTGCCCTCGGACGAGT
MO296	TTGCAGAAGATGAGGAACGTGAAGCTCCCGAAGACATTTCTCTCCATAACACACATTCAGATGTTACT TTTGATTTTGTTAGTAAAGGAGAAGAACTTTTCACTG
cdc25f	ATGACCTGCACCAAGGCTAT
cdc25r	TCATTAACGTCTGGGGAAGC
wee1f	GATGAGGTTTGCTGGGTTGA
wee1r	CATTCACCTGCCAATCTTCC
srp7f	GTGCATGTTCGGTGGTCTCG
srp7r	AAGACCCGGTAGTGATGTGC

Table S2. Oligonucleotides used for FISH (Related to STAR Methods)

rpb1 FISH Probe Array	gtgaaaactgaatcccgctc,cttcgcaacgctcattgaac,tattggcggagggattacta,gcatactgctcattaagacc,ttccatc caccgaaatacta,attgtccatatacgtggcaa,ttttgtaaagcctgaggctg,tacttttaagaggtctgcca,gatcaccggtaatc acagta,tggaacaccgagttcatcta,ctctcctgtatcacgaatga,cattttgtgaagggatggct,cgagtttcttctgactgagg, acaatctgcttaggtaccat,attcattacagcgttgcgag,gcttatcgtcgtctctaatt,gtctctcgcttgattgagaa,cgacgcaa gcagacatttga,tacgtttgccttcaacgatt,cacgagattctggagagtcg,ttgaggagttaaaccccctta,gcagtatcaatcaa accctc,aacaagacgcctttggatgt,aaccattacatcctccatag,actcctatcctccattaaat,gttctcaatagagttctcca,g catcacctttggggaaaat,tcggtaaaagatcggtgggt,ttccattattacccgtttta,acccaaggtaacgttcttag,gaatttcg gttgcagaggta,taagcttgtctgcattatcc,tacggtcatcatcgcgaatg,ctctcaagcatatgaccttc,acgagtaatgttcgg cacac,gtaagatttatgccgtctgt,gttaatgccatgacgggtaa,agcagcatccataaggattt,ccagaatcaaccattggtga, tggactagtataaccagggg,tgaagtaagtccatacccag,ggaatatcccggagatgatg,tcgatggcatataagcaggt,tagg agggactagttggaga,aatatgatgggcttgtggga,agagggactagtcggtgaat,gagggactagttggagagta,tagggga atacgagggactc
cdc25 FISH Probe Array	gccagatagagtgttggtaa,cagcaggacgcaatacattc,ctcttgatttgcattgcgat,gtgtttggatttcgggaaga,gatcca ctaatgttgaggca,gctgtcgaacaagtttttcc,cagcagctaaggaagatgca,gctttcatcgatatgcatgt,aagagcgtacg acgaggagt,gagaggggtttctacagtac,tccgggagaggtgaaacaat,ctcggttaaagcgtcattcg,ggaatacttcgatgc aggtt,tagtgctggaaacacgtggg,tgctttaggcttaaagctgt,cgcttttggtggtgtttaat,acgttaggacgaaggtagga,g ttgcctgatgatcgagaac,gaactcgatctggatcgcaa,cagaagttcccttcttttttg,taagtcaaatggcgggtagc,ctgacta caggtacgggata,caagtaagctggtcgtgttg,cttgcccatcgtaaatgtat,agttcaacagagctttctgg,aatagaggcagc gtcttcaa,gcaccaaaatcactgttggg,gggacctaactttcaagcta,tcttcttgcatagcgaatgc,ggtgtatcttgctcatcat a,aacatgctttgggtacgacg,ttgaaaagccctagtcttgt,aacgcacacaagatcttggc,cactttctttggtcgattgt,cacgg cgaagcaaggaagag,attcgtttcaatgagtcctc,agaccgagcaatgtttcttg,ccacaatagcttgtttcgta,cccgatgagta agaggttta,gcgcactatgttcacaatga,agtgcaatgccaaatgaggt,gactattcattcgtctgtcg,acgacttgtaaccacca tga,ttgggtcacaacggtttttg,atcgttcatcggaacgtagt,cttggtgcaggtcataacat,aacgtctggggaagctaaca,tgc atggcagtaggagaatc