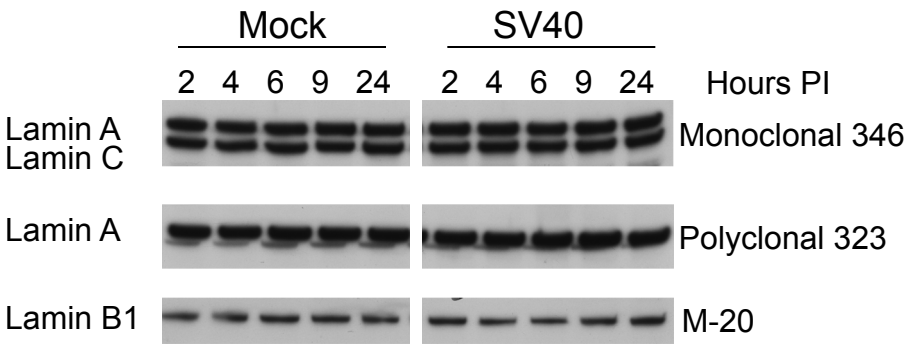


Figure S1. Fluctuations in lamin A/C levels are specific to quiescent CV1 cells infected with SV40. Analysis of total cell extracts of mock-infected and SV40-infected logarithmic cultures by western blotting with monoclonal lamin A/C (346), polyclonal lamin A (323) and lamin B1 (M-20). Detections with the 3 antibodies were performed on the same membrane.

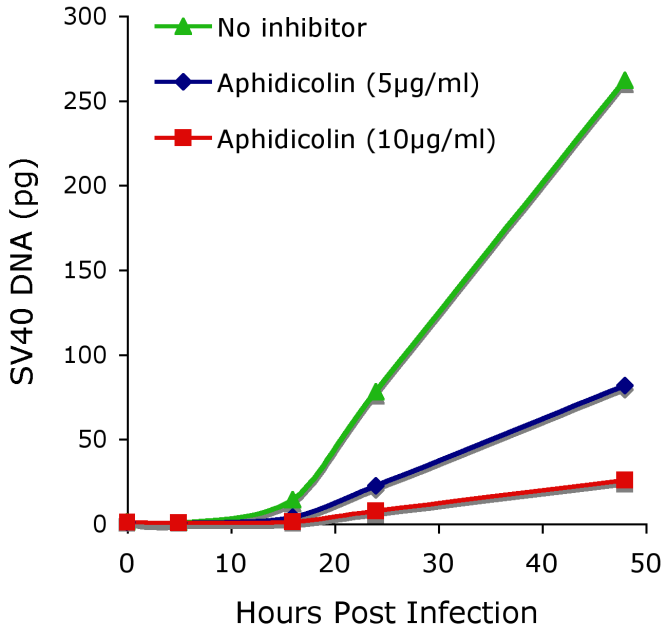


Figure S2. Effect of aphidicolin on the rapid increase in SV40 DNA after nuclear entry. SV40-infected COS-1 cells (moi=50) were treated by 5 or 10 μg/ml aphidicolin at the end of the virus adsorption period. At the indicated time points post infection the cells were collected, nuclei were isolated and sonicated. The amount of SV40 DNA was determined by quantitative real-time PCR with SV40-specific primers. SV40 DNA served as a standard for quantification.

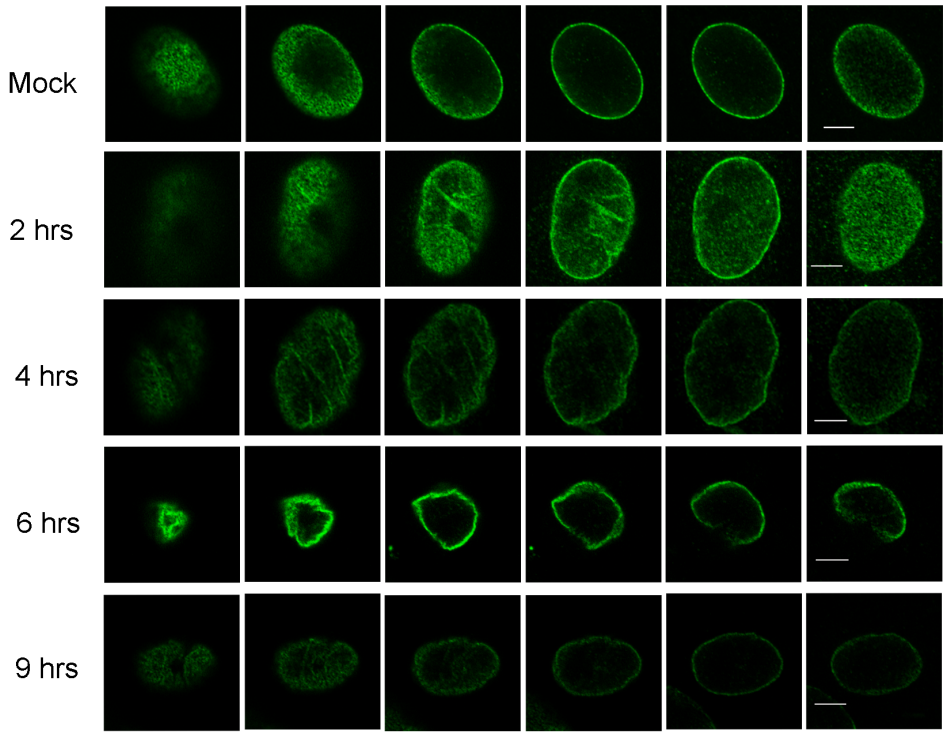
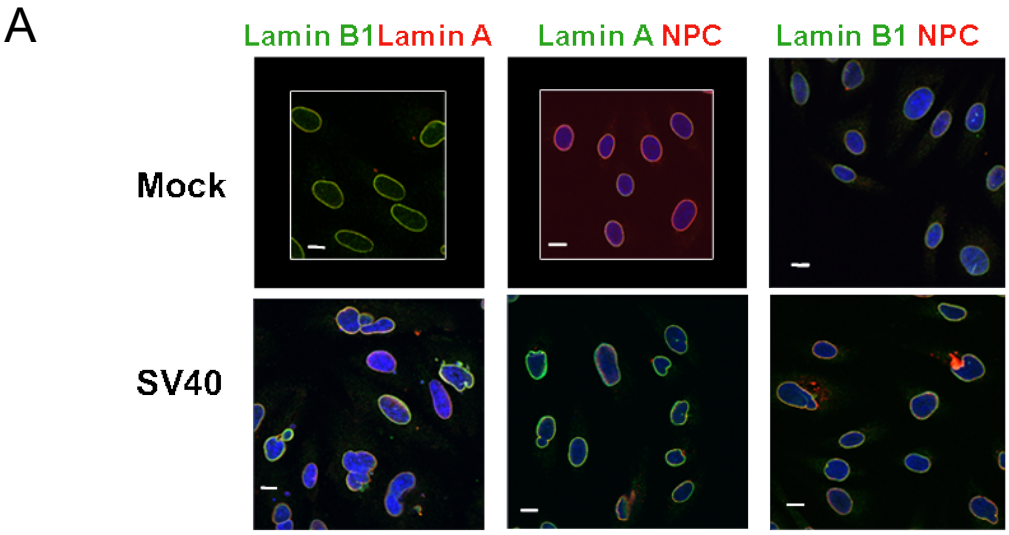


Figure S3. Dynamic changes in the nuclear envelope studied by immunofluorescence of lamin A/C. CV1 cells infected at a moi of 10 were fixed and stained with monoclonal lamin A/C antibody Jol2 at the indicated time points. Z-stack section images (slices with 0.7 µm intervals) were taken with a confocal Carl Zeiss Laser Scanning Systems LSM510, magnification X100, zoom 2. Bar represent 5 µm.



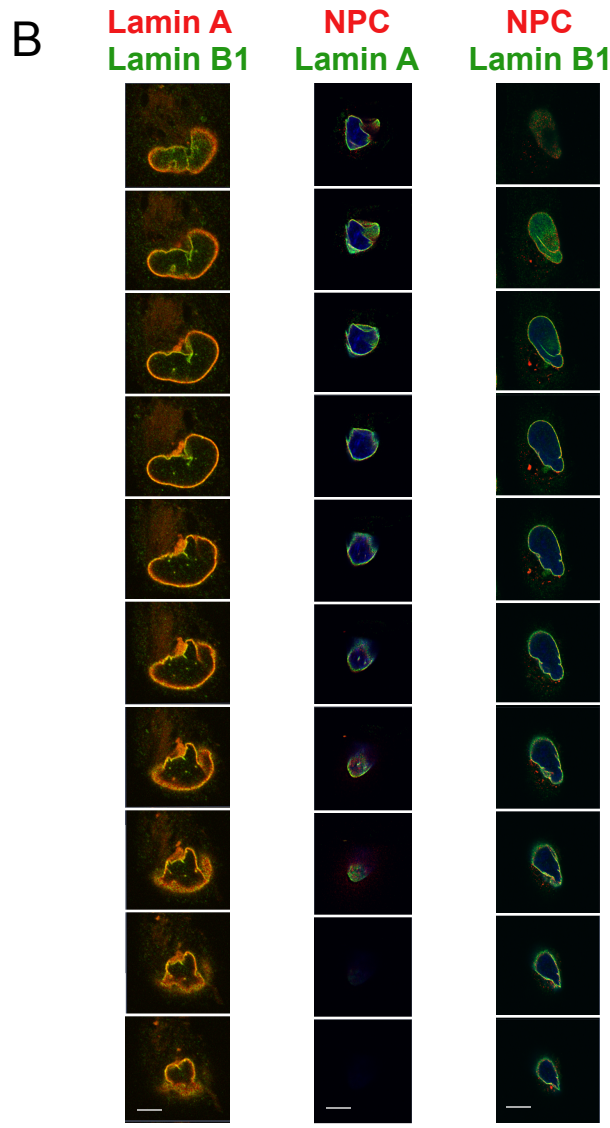


Figure S4. Deformation of the nuclear envelope. (A). Images of representative fields taken at 6 hours post infection showing superimposition of staining for lamin A/C, lamin B and NPC. (B). Z-stacks of infected cells taken at 6 hours post infection showing some of the deformations induced by the infecting virus. Bar represent 10 μm.

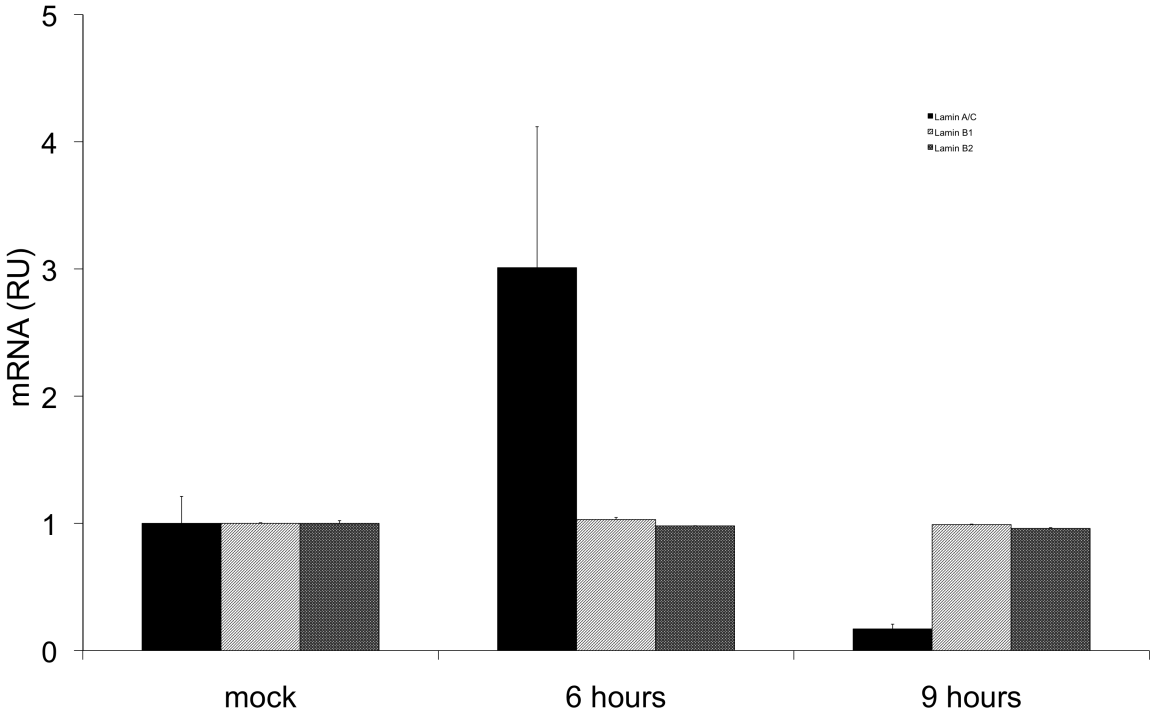


Figure S5. Transcription of *LMNA* following SV40 infection. The relative amount of lamin A/C mRNA in total mRNA extracted from mock and SV40 infected CV1 cells was determined by quantitative RT-PCR analysis, using Qiagen QuantiFast Multiplex RT-PCR Kit and lamin A/C QuantiTect Primer Assays. Relative mRNA level of lamin A/C, lamin B1 and lamin B2 were normalized to mRNA of GAPDH, using Qiagen GAPDH QuantiTectPrimer Assays. The histogram presents average of 3 experiments; standard errors shown as bars.

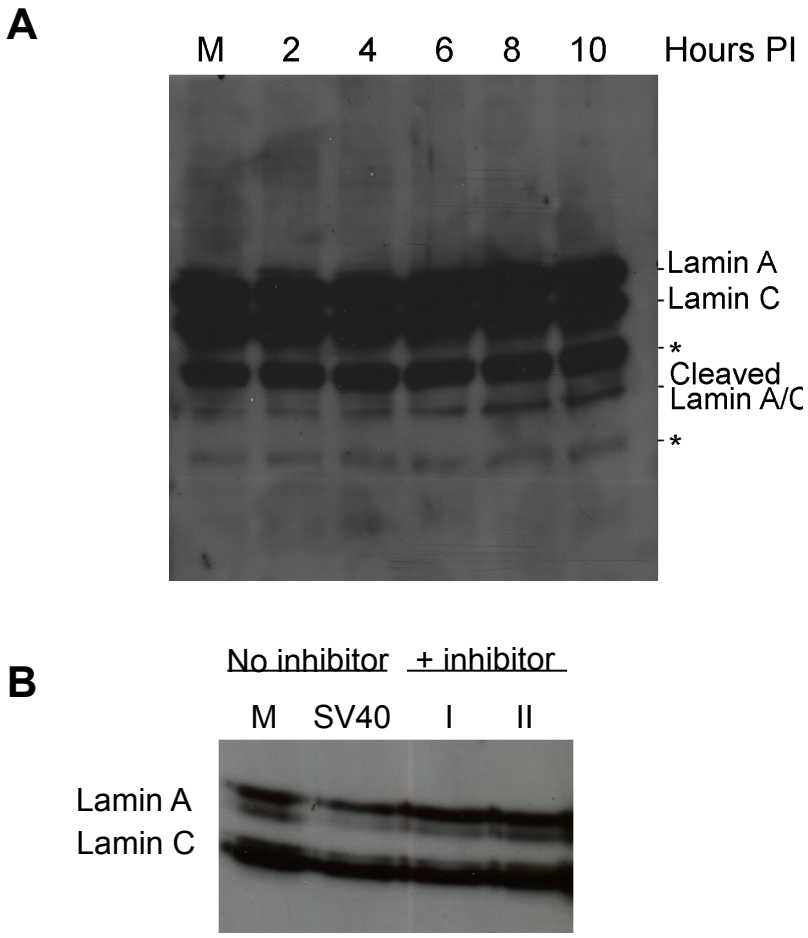


Figure S6. Cleavage of Lamin A/C by caspase-6. Total cell extracts of infected cells were analyzed by western blotting with polyclonal Lamin A/C antibody (266). (A). Cleavage product of Lamin A/C (~45 kDa) by caspase-6 was detected as a thin band. * designate non-specifically detected bands. (B). control experiment showing that addition of caspase-6 inhibitors significantly reduced the cleavage of lamin A/C by caspase 6. I - Ac-VEID-CHO, II - sc-3081. The experiments were repeated three times.

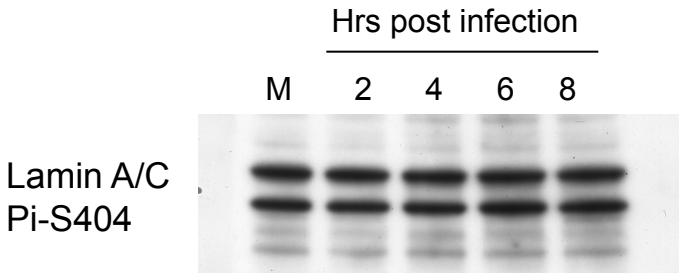


Figure S7. Ser404 phosphorylation by Akt-1 is not altered during SV40 cell entry. CV1 cells were harvested at different time points following infection. Lamin A/C phosphorylated on Ser404 were detected with monoclonal anti-lamin A/C Pi-Ser404.

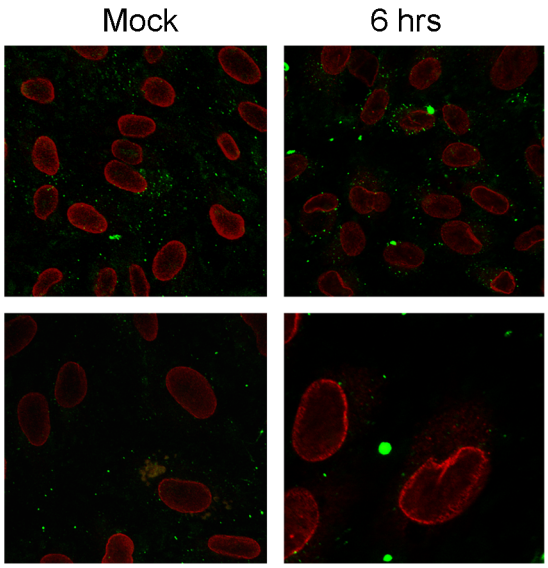


Figure S8. The deformed nuclear envelope is not permeable to BSA. SV40 and mock-infected cells were treated with Alexa fluor 488-BSA (Green) at the end of the virus adsorption period. At 6 hours post infection the cells were fixed and the outer cell membrane was permeabilized by digitonin to facilitate staining of lamin A/C with monoclonal lamin A/C antibody Jol2 (Red). Cross section images were taken with Olympus confocal microscope, at magnification x 40 (upper panel) and magnification x60 (lower panel).