Supplementary Fig. 1

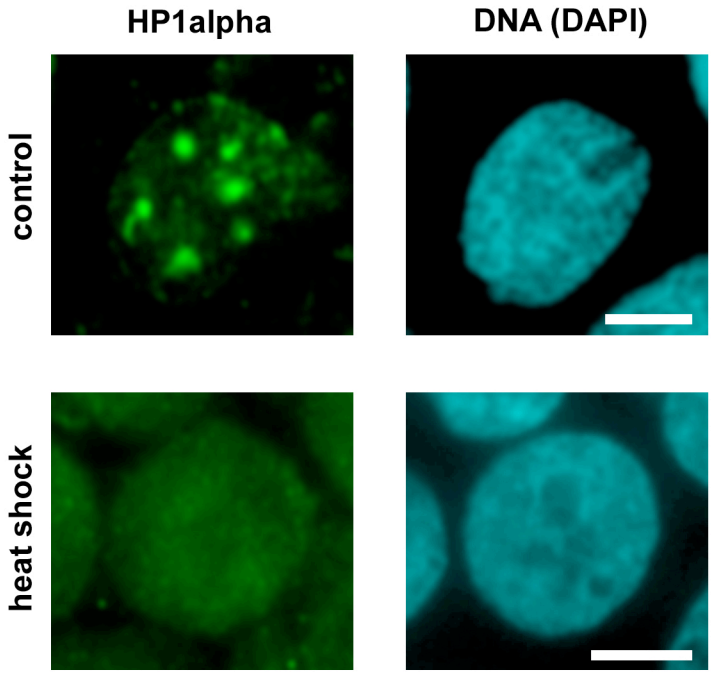

Figure S1. Nuclear distribution of HP1α in control (untreated) and human lymphoid Jurkat cells treated with heat shock. Cells were immunostained with a mouse monoclonal antibody against HP1α and visualized with Alexa Fluor 488-conjugated anti-mouse IgG. DNA was stained with DAPI fluorescent dye. Images were collected using a Leica DRMB fluorescence microscope equipped with a charge-coupled device camera. Only one representative section is shown in each case. Bar scale: 5 μm.

Supplementary Fig. 2

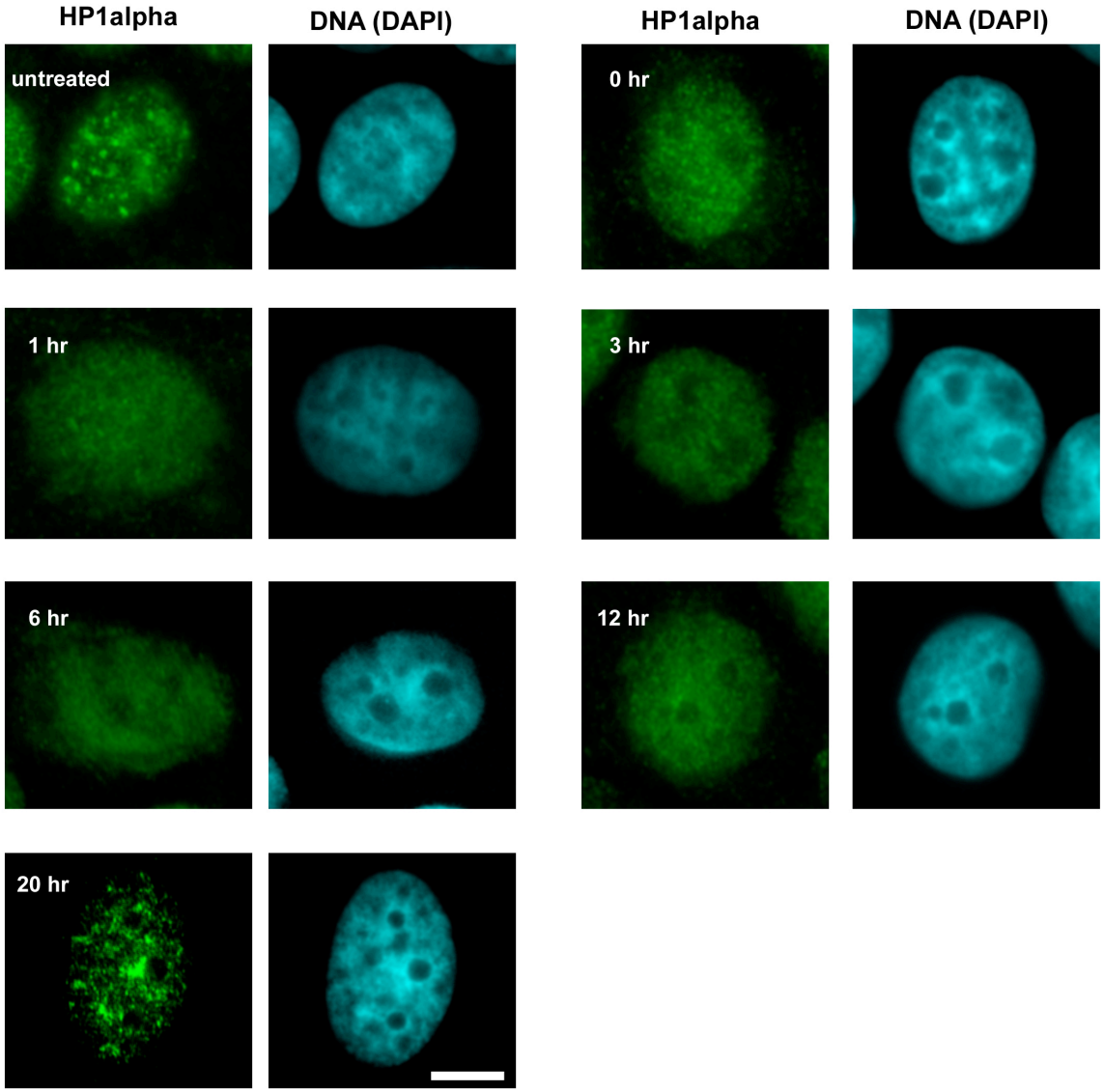

Figure S2. Kinetics of HP1α foci recovery after heat shock in human MCF-7 cells. MCF-7 cells that were either untreated, treated with heat shock or treated with heat shock and allowed to recover for the indicated time intervals (1, 3, 6, 12 and 20 hours) were immunostained with a mouse monoclonal antibody against HP1α and visualized with Alexa Fluor 488-conjugated anti-mouse IgG. DNA was stained with DAPI fluorescent dye. Images were collected using a Leica DRMB fluorescence microscope at high magnification. Only one representative section is shown in each case. Bar scale: 5 μm.

Supplementary Fig. 3

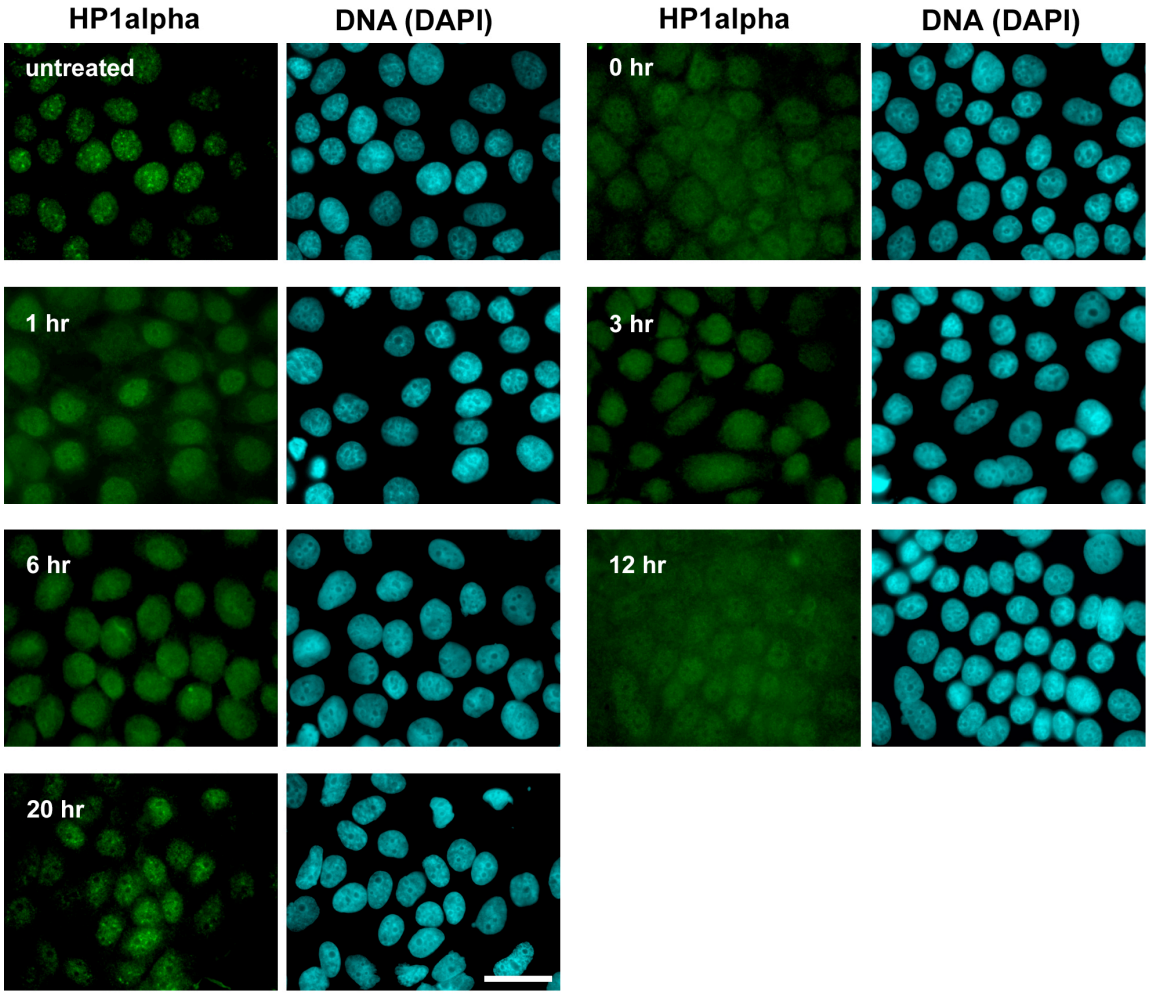

Figure S3. Kinetics of HP1α foci recovery after heat shock in human MCF-7 cells. MCF-7 cells that were either untreated, treated with heat shock or treated with heat shock and allowed to recover for the indicated time intervals (1, 3, 6, 12 and 20 hours) were immunostained with a mouse monoclonal antibody against HP1α and visualized with Alexa Fluor 488-conjugated anti-mouse IgG. DNA was stained with DAPI fluorescent dye. Images were collected using a Leica DRMB fluorescence microscope at low magnification. Only one representative section is shown in each case. Bar scale: 20 μm.

Supplementary Fig. 4

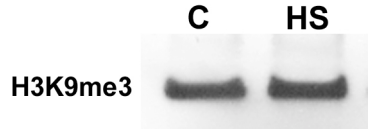

Figure S4. Western blot analysis of H3K9me3 in control (untreated, C) and heat-shocked (HS) MCF-7 cells.

Supplementary Fig. 5

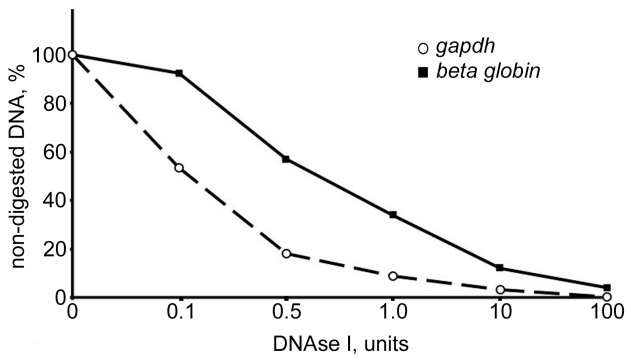

Figure S5. DNAse I sensitivities of house-keeping (GAPDH) and tissue-specific (β-globin) genes in human MCF-7 cells. Aliquots (50 ng) of genomic DNA extracted from nuclei of MCF-7 cells digested with increasing amounts of DNase I were subjected to SYBR Green–based quantitative PCR analysis. The Ct values obtained were converted to DNA concentration using a standard curve (data not shown). DNase I sensitivity was expressed as a percentage of preserved template for amplification of test fragment (y-axis) and is plotted for varying DNase I concentrations (0-100 U; x-axis). The results of one representative experiment are shown.

Supplementary Table S1: CENP-A focal values **(**average number of foci per cell and average size of foci) in untreated and heat shock treated MCF-7 cells.

	non-treated cells	**heat-shocked cells**
number of cells analyzed	23	27
average number of foci per cell	20,01±0,53	19,73±0,41[*]
average size of foci, µm	0,588±0,022	0,602±0,03[#]

[*]p>0.1; [#]p>0.1

Supplementary Table S2. PCR primers

hsp70	*dir*	5'-GGA-GGC-GGA-GAA-GTA-CAA-3'
	rev	5'-GCT-GAT-GAT-GGG-GTT-ACA-3'
gapdh	*dir*	5'-AAACTGTGGCGTGATGGC-3'
	rev	5'-CAGTGGGGACACGGAAGG-3'
beta globin	*dir*	5'-CCTCTTATCTTCCTCCCA-3'
	rev	5'-ACACCAGCCACCACTT-3'
D1Z7	*dir*	5’-AAACTGCGTTGTGATGTG-3’
	rev	5’-AGGCTCAAGGAGGTCTGT-3’