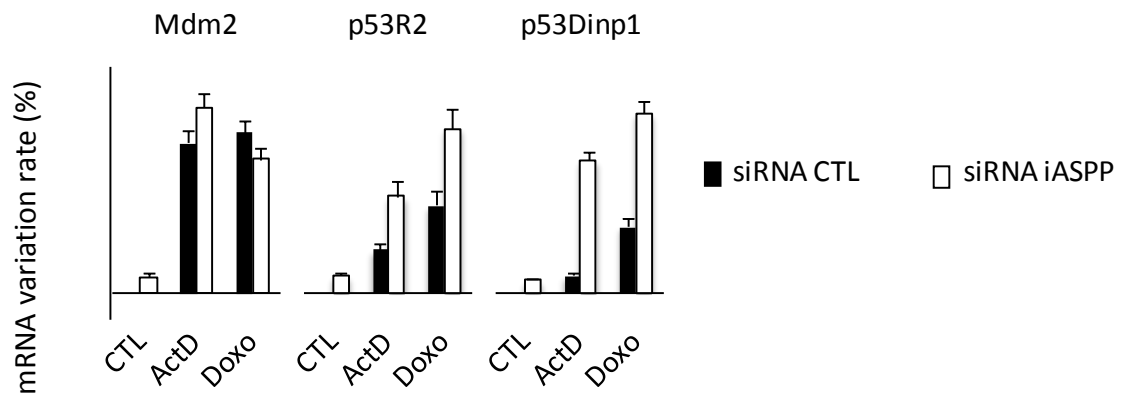


**Supplementary Figure S1:**

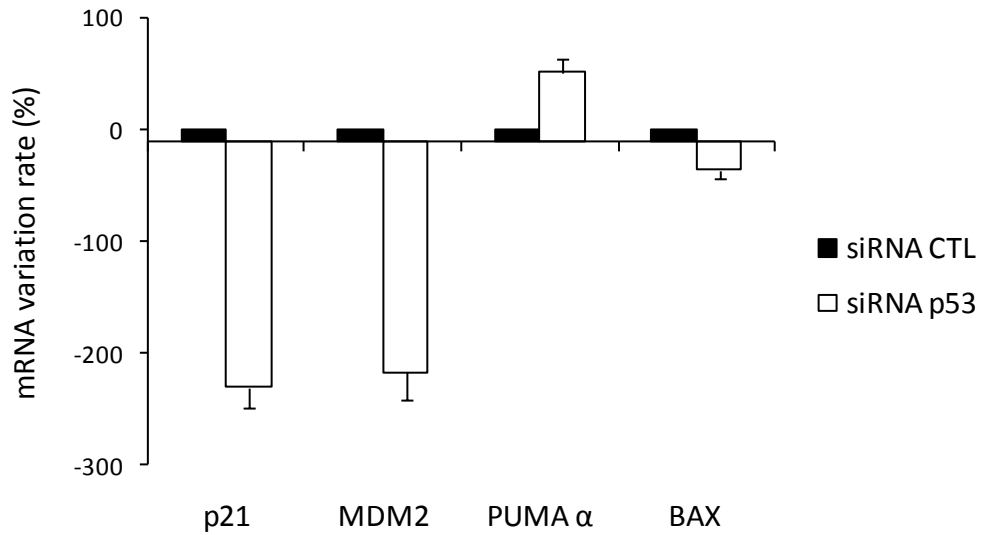
Expression and localization of ASPP1 in U2OS cells infected with a retroviral construct coding for ASPP1 or control, using an antibody directed against ASPP1.

Nucleus is counterstained with DAPI.



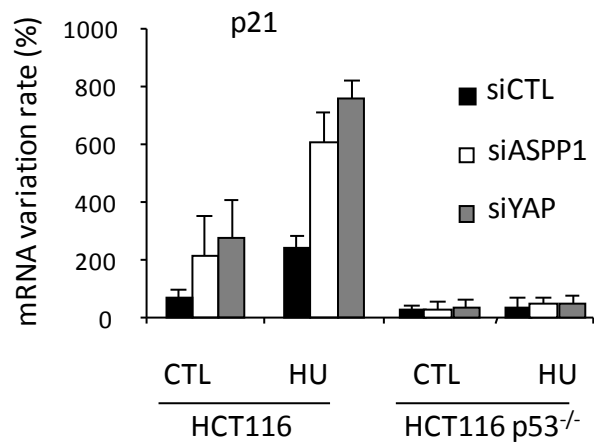
### Supplementary Figure S2:

U2OS cells were transfected with control siRNA or specific siRNA directed against iASPP. mRNA expression of indicated p53 target genes was determined by RT-QPCR using specific primers after incubation of these cells 24 hours with 5nM Actinomycin D (ActD) or 200ng/ml Doxorubicin (Doxo). The results were normalized against two different standard genes, and the graphs represent the mean of three independent experiments.



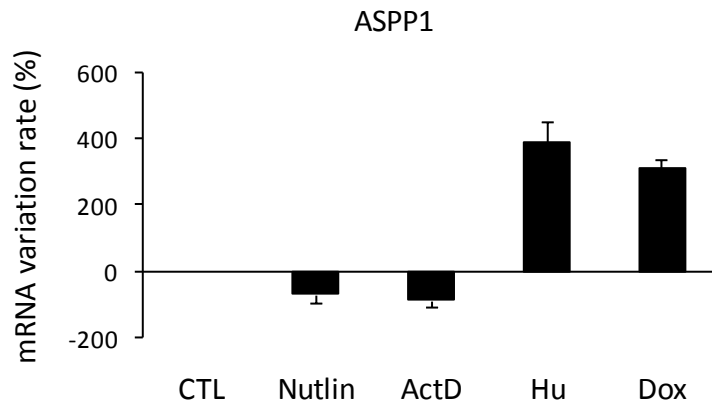
**Supplementary Figure S3:**

mRNA expression of different p53-target genes in HCT116 cells treated with control siRNA or specific siRNA targeting p53 mRNA. mRNA expression was quantified by RT-QPCR using specific primers. The results were normalized against two different standard genes, and the graphs represent the mean of three independent experiments.



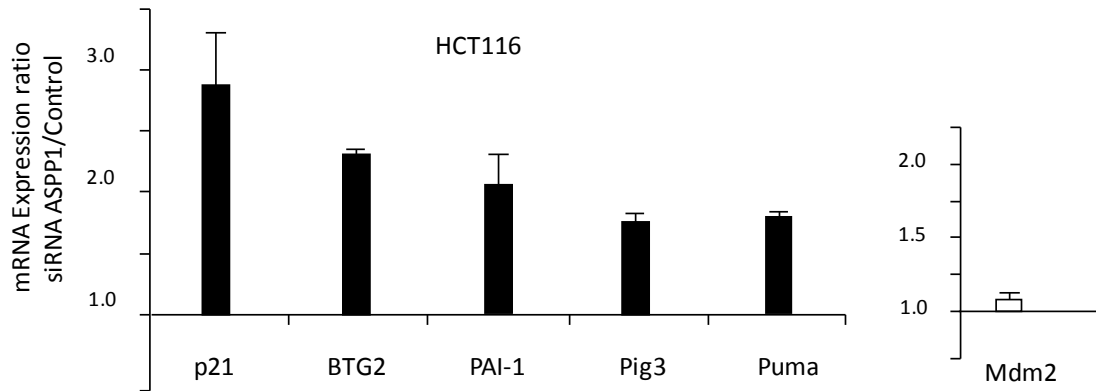
**Supplementary Figure S4:**

HCT116 or HCT116 p53<sup>-/-</sup> transfected with control siRNA or siRNA targeting ASPP1 or YAP were treated for 24h with 400 $\mu$ M hydroxyurea. p21 mRNA expression was quantified by RT-QPCR using specific primers. The results were normalized against two different standard genes, and the graphs represent the mean of three independent experiments.



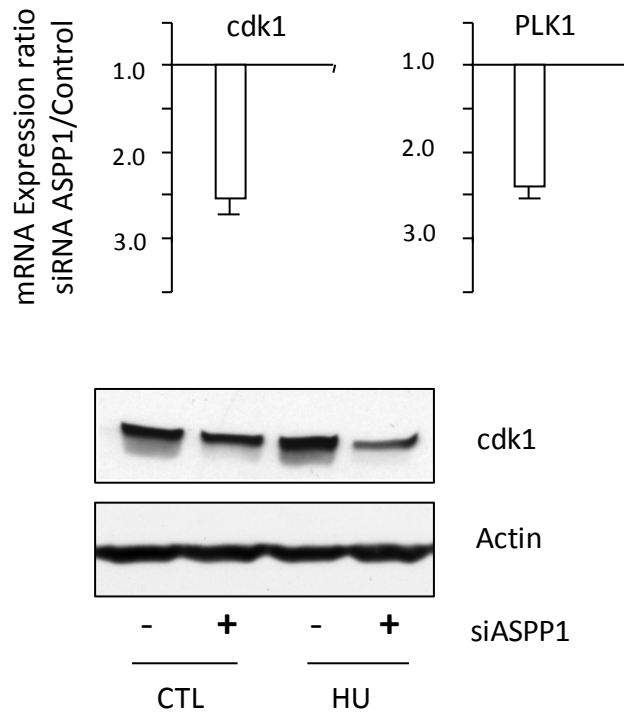
**Supplementary Figure S5:**

HCT116 cells untreated or treated with 10 $\mu$ M Nutlin, 5nM Actinomycin D, 400 $\mu$ M hydroxyurea or 150ng/ml doxorubicin were lysed and mRNA expression of ASPP1 was quantified by RT-QPCR using specific primers. The results were normalized against two different standard genes, and the graphs represent the mean of three independent experiments.



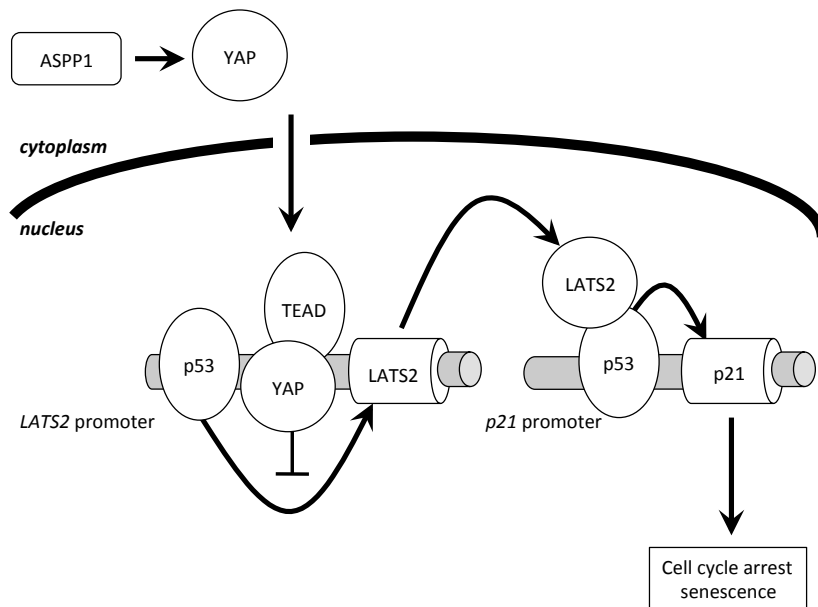
### Supplementary Figure S6:

Indicated p53 target gene expression measured by RT-QPCR with specific primers in HCT116 cells transfected with control or ASPP1 siRNA and treated with 400 $\mu$ M hydroxyurea for 24 hours. The results were normalized against two different standard genes and presented as a ratio between the values obtained under siRNA ASPP1 and control conditions. The graph represents the mean of 5 independent experiments.



### Supplementary Figure S7:

*Cdk1* mRNA expression measured by RT-QPCR with specific primers in HCT116 cells transfected with control or ASPP1 siRNA and treated with 400 $\mu$ M hydroxyurea for 24 hours and release 48hours in normal medium. The results were normalized against two different standard genes and presented as a ratio between the values obtained under siRNA ASPP1 or control conditions. The graph represents the mean of 3 independent experiments. Lower panel shows *cdk1* protein expression measured by western blot with a specific antibody against *cdk1*. Actin is used as a loading control.



**Supplementary Figure S8:**

Model depicting the p21 gene regulation by the p53/LATS2 and ASPP1/YAP pathways.