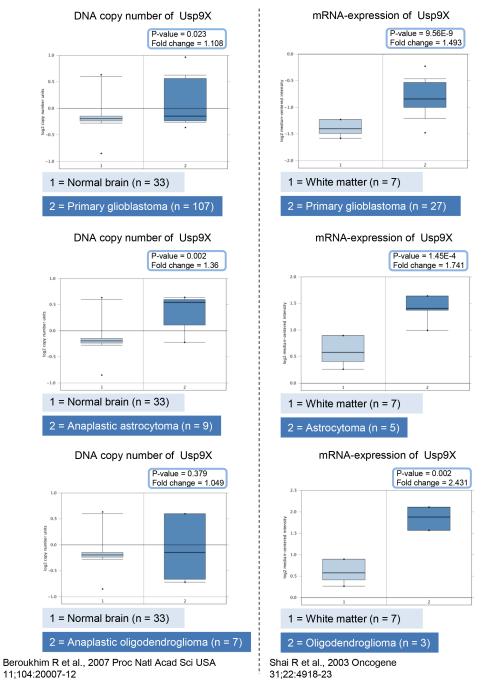
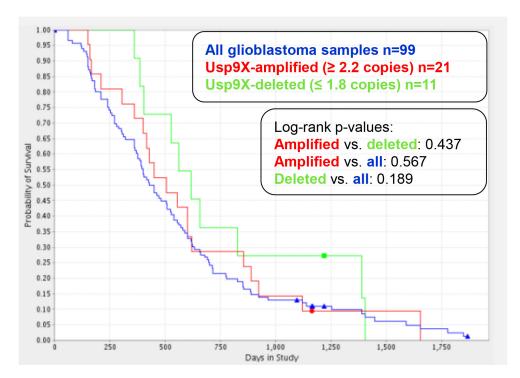
## Inhibition of deubiquitinases primes glioblastoma cells to apoptosis in vitro and in vivo

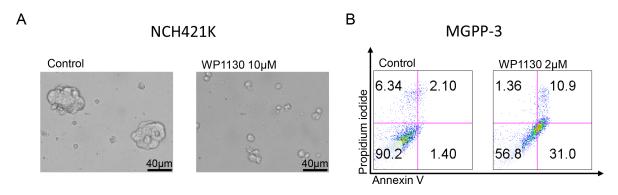
**Supplementary Materials** 



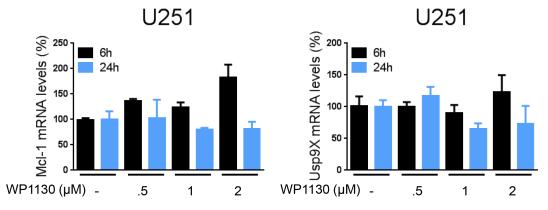
Supplementary Figure S1: Usp9X DNA copy number and mRNA expression in different gliomas compared to normal brain. *In silico* gene expression analysis of Usp9X using the oncomine® database (www.oncomine.org, 11/2015, Compendia Bioscience, Ann Arbor, MI).



**Supplementary Figure S2:** *In silico* analysis on the survival of glioblastoma patients based on the amplification status of the Usp9X gene (National Cancer Institute. 2005. REMBRANDT home page. <a href="http://rembrandt.nci.nih.gov">http://rembrandt.nci.nih.gov</a>).



**Supplementary Figure S3:** (A) Representative microphotographs of NCH421K glioma stem-like cells treated with solvent or WP1130 for 48 h at indicated concentrations. Magnification,  $\times$ 40; scale bar, 40  $\mu$ m. (B) representative flow plots of MGPP-3 glioblastoma cells that were treated as indicated with WP1130 prior to staining with annexin V/propidium iodide and flow cytometric analysis.



**Supplementary Figure S4:** U251 glioblastoma cells were treated for 6 h or 24 h with increasing concentrations of WP1130 prior to isolating RNA, reverse transcription and real-time PCR analysis for Mcl-1 and Usp9X. Columns: means. Bars: SD.