

Supplementary Information for:

**Etoposide loaded layered double hydroxide nanoparticles
reversing chemoresistance and eradicating human glioma
stem cells *in vitro* and *in vivo***

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Table S1 The list of primers which were used for qPCR analysis.

Gene	Sense Strand (5'-3')	Antisense Strand (5'-3')
Gapdh	TGTGGGCATCAATGGATTTGG	ACACCATGTATTCCGGGTCAAT
Oct4	GTGTTTCAGCCAAAAGACCATCT	GGCCTGCATGAGGGTTTCT
Sox2	TACAGCATGTCCTACTCGCAG	GAGGAAGAGGTAACCCACAGGG
Nanog	TTTGTGGGCCTGAAGAAAACCT	AGGGCTGTCCTGAATAAGCAG
Nestin	CAACAGCGACGGAGGTCTC	GCCTCTACGCTCTCTTCTTTGA
Wnt5B	GCTTCTGACAGACGCCAACT	CACCGATGATAAACATCTCGGG
Frizzled	ATCTTCTTGTCGGGCTGTTACA	GTCCTCGGCGAACTTGTCAAT
GSK3β	GGCAGCATGAAAGTTAGCAGA	GGCGACCAGTTCTCCTGAATC
β-catenin	AAAGCGGCTGTTAGTCACTGG	CGAGTCATTGCATACTGTCCAT
Esrrb	ATCAAGTGCGAGTACATGCTC	CGCCTCCGTTTGGTGATCTC
FAK	GCTTACCTTGACCCCAACTTG	ACGTTCCATACCAGTACCCAG
PI3K	CCACGACCATCATCAGGTGAA	CCTCACGGAGGCATTCTAAAGT
Akt	CCTCACGGAGGCATTCTAAAGT	GCCATCATTCTTGAGGAGGAAGT
p53	CAGCACATGACGGAGGTTGT	TCATCCAAATACTCCACACGC
Tbx3	TCATCCAAATACTCCACACGC	TCATCCAAATACTCCACACGC

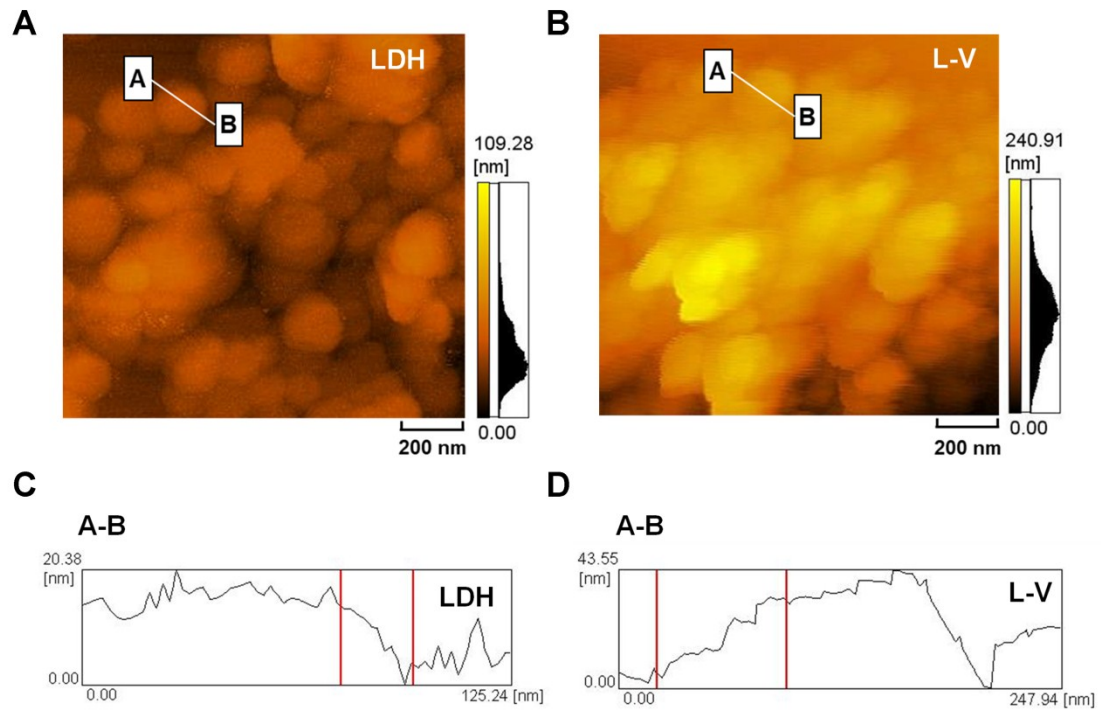


Fig. S1 Atomic force microscope (AFM) analysis of nanoparticle thickness of LDH (A and C) and L-V (B and D).

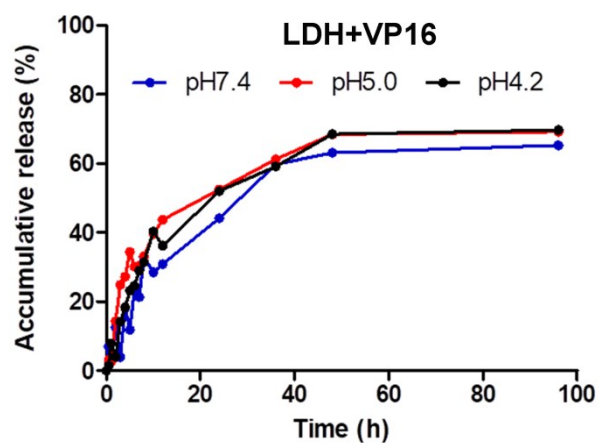


Fig. S2 The *in vitro* release profile of LDH+VP16 in pH 7.4 PBS (blue), pH 5.0 PBS (red) and pH 4.2 PBS (black).

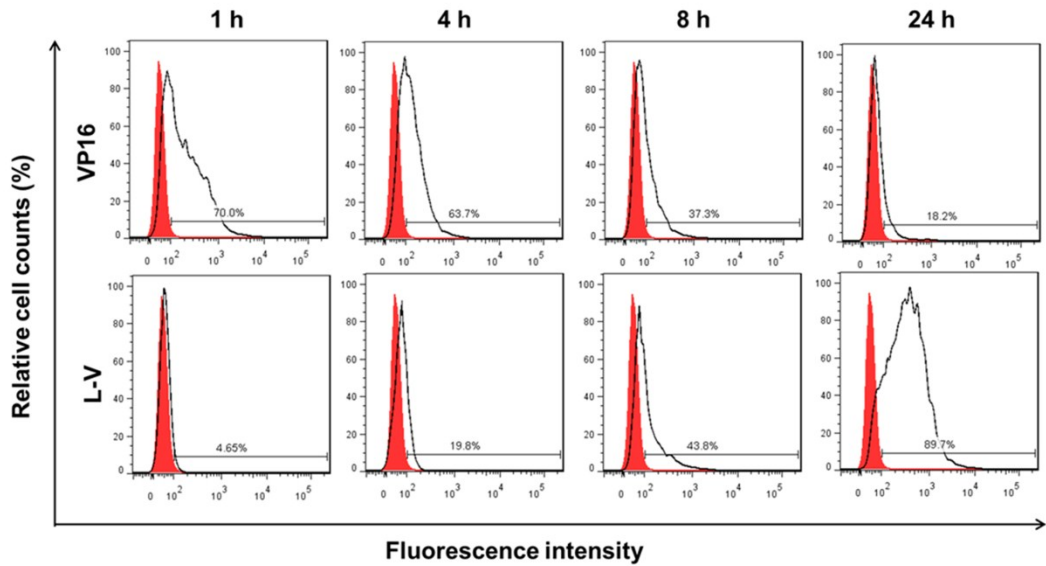


Fig. S3 Flow cytometric analysis of cellular uptake of VP16 and L-V at different time points in GSCs.

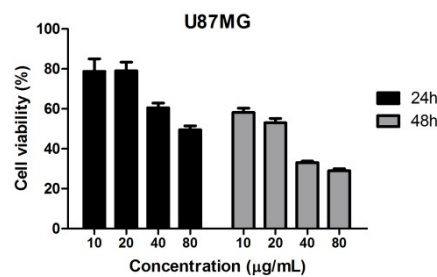


Fig. S4 The cell viability of U87MG cells treated with VP16 at different concentrations for 24 h and 48 h.