

Figure S1. PARP1 cleavage is induced by reversine in glioma cells. Bar graphs represent the mean  $\pm$  SD of the ratio of cleaved/total PARP1 band intensities (arbitrary units, A.U.) of 3 independent experiments from HOG, T98G and U251MG cells treated with (A) vehicle (DMSO) or graded concentrations of reversine (vehicle, 1.6, 3.2 or 6.4  $\mu$ M) for 24 h or (B) graded time of exposure (24, 48 and 72 h) to reversine at 1.6  $\mu$ M. \* $P$ <0.05, \*\* $P$ <0.01 and \*\*\* $P$ <0.001. PARP1, poly(ADP-ribose) polymerase 1.

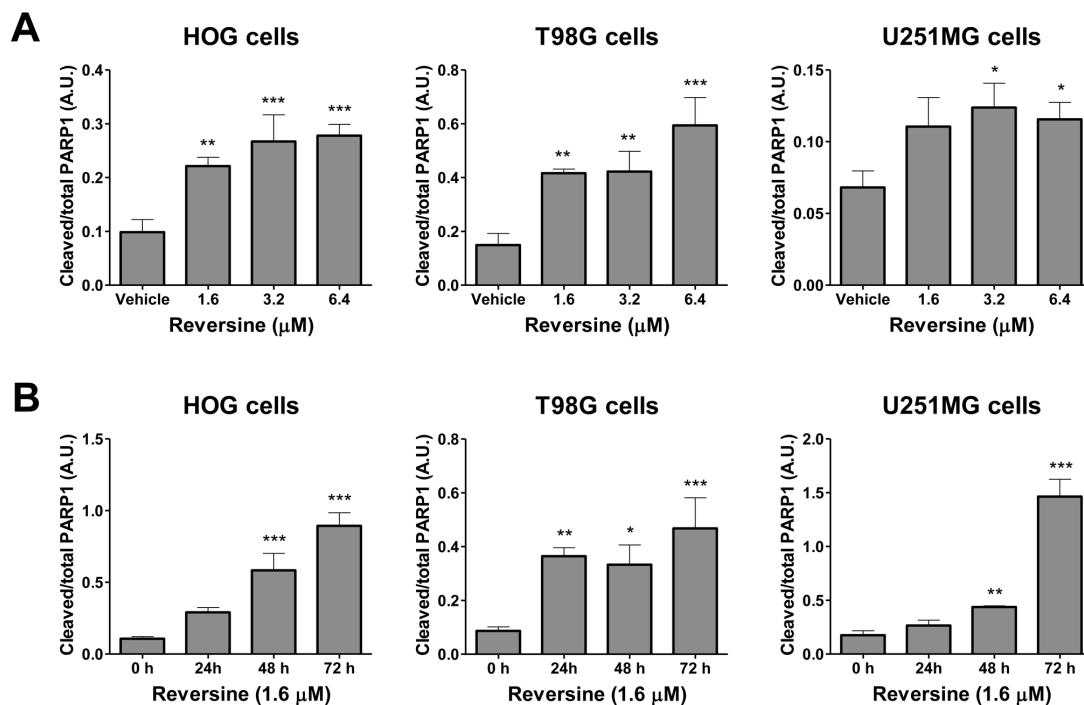


Figure S2. Pan-caspase inhibitor, Z-VAD-FMK, partially attenuated the reversine-induced reduction of cell viability in glioma cells. Cytotoxicity was analyzed using a sulforhodamine B (SRB) assay for HOG, T98G and U251MG cells treated with vehicle (DMSO) or graded concentrations of reversine (0.8, 1.6, 3.2 and 6.4  $\mu$ M) in combination or not with Z-VAD-FMK (20  $\mu$ M) for 48 h. Values are expressed as the percentage of viable cells for each condition relative to vehicle-treated cells. Results are shown as mean  $\pm$  SD of at least 3 independent experiments. \*P<0.05, reversine-, and/or -Z-VAD-FMK vs. vehicle-treated cells; #P<0.05 for reversine- or Z-VAD-FMK-treated cells vs. combination treatment at the corresponding doses.

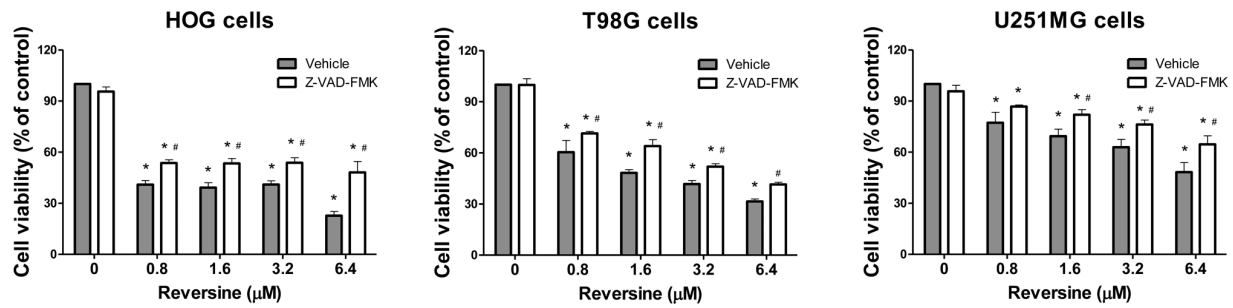


Figure S3. Venetoclax (selective BCL2 inhibitor) or obatoclax (BH3 mimetic) potentiated reversine-induced reduction of cell viability in glioma cells. Cell viability was analyzed using a sulforhodamine B (SRB) assay. (A) Dose-response cytotoxicity for HOG, T98G, and U251MG cells treated with vehicle (DMSO) or graded concentrations of venetoclax (0.1, 0.5, 1, 5, 10 and 50  $\mu$ M) or obatoclax (0.01, 0.03, 0.1, 0.3, 1 and 3  $\mu$ M) for 48 h. Values are expressed as the percentage of viable cells for each condition relative to vehicle-treated cells. (B) HOG, T98G, and U251MG cells treated with vehicle or graded concentrations of reversine (0.8, 1.6, 3.2 and 6.4  $\mu$ M) in combination or not with venetoclax (5  $\mu$ M) or obatoclax (HOG, 10 nM; T98G, 30 nM; and U251MG, 100 nM) for 48 h. Doses between IC<sub>30</sub> and IC<sub>40</sub> for venetoclax and obatoclax were selected for combination studies in each cell line. Values are expressed as the percentage of viable cells for each condition relative to vehicle-treated cells. Results are shown as mean  $\pm$  SD of at least 3 independent experiments. \*P<0.05 for reversine-, venetoclax- and/or obatoclax-treated cells vs. vehicle-treated cells; #P<0.05 for reversine-, venetoclax-, or obatoclax-treated cells vs. combination treatment at the corresponding doses. IC, inhibitory concentration.

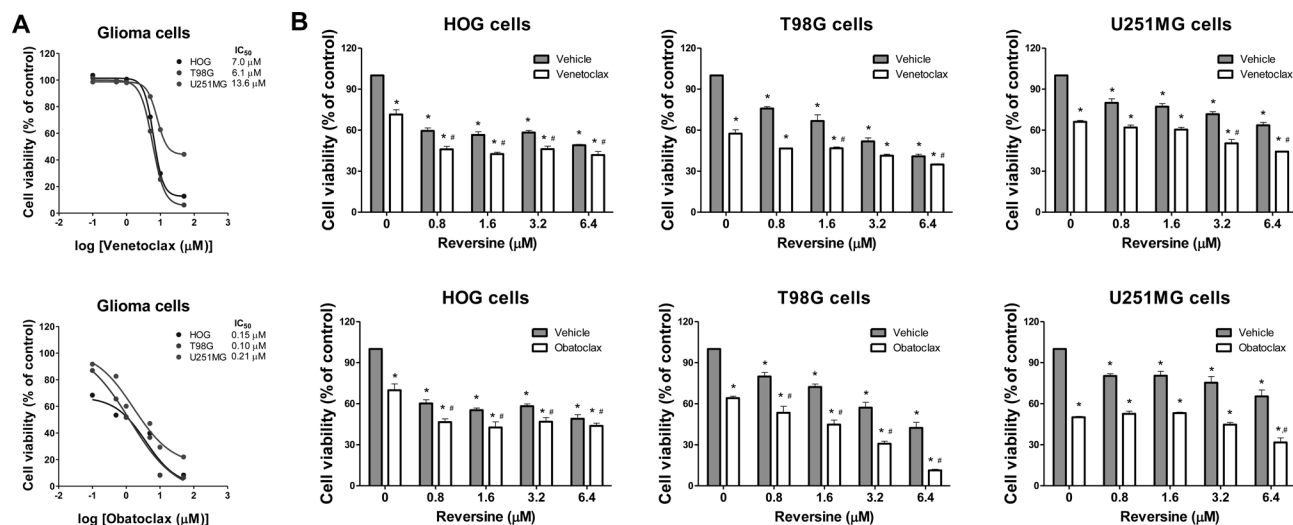


Table SI. RT-qPCR primer sequences and concentrations.

Gene	Sequence (5'-3')	Concentration
AURKA	FW: CCACCTTCGGCATCCTAATA RV: TCCAAGTGGTGCATATTCCA	300 nM
AURKB	FW: CCCTGAGGAGGAAGACAATG RV: GCACCACAGATCCACCTTCT	300 nM
BCL2	FW: ATGTGTGTGGAGAGCGTCAA RV: ACAGTTCCACAAAGGCATCC	300 nM
BCL2L1	FW: CTTGGATGGCCACTTACCTGAA RV: GCTGCTGCATTGTTCCCATA	300 nM
BIRC5	FW: GCCCAGTGTTTCTTCTGCTTCA RV: GCACTTTCTCCGCAGTTTCCTC	300 nM
BNIP3	FW: ATATGGGATTGGTCAAGTCGG RV: CGCTCGTGTTCTCATGCT	300 nM
BNIP3L	FW: ACACCAGCAGGGACCATAGC RV: TTTCTTCAAAGCCTCGACTTCC	300 nM
BAD	FW: CACCAGCAGGAGCAGCCAAC RV: CGACTCCGGATCTCCACAGC	300 nM
BAX	FW: GAGCTGCAGAGGATGATTGC RV: CAGCTGCCACTCGGAAAA	300 nM
BBC3	FW: GACCTCAACGCACAGTACGAG RV: AGGAGTCCCATGATGAGATTGT	300 nM
PMAIP1	FW: CGCGCAAGAACGCTCAACC RV: CCACTCGACTTCCAGCTCTGCT	300 nM
CDKN1A	FW: TGTCACTGTCTTGTACCCTTGT RV: GCCGGCGTTTGGAGTGGTAG	300 nM
CDKN1B	FW: ACTCTGAGGACACGCATTTGGT RV: TCTGTTCTGTTGGCTCTTTTGGT	300 nM
GADD45A	FW: AAGGATGGATAAGGTGGGG RV: CTGGATCAGGGTGAAGTGG	300 nM
HPRT1	FW: GAACGTCTTGCTCGAGATGTGA RV: TCCAGCAGGTCAGCAAAGAAT	150 nM
ACTB	FW: AGGCCAACCGCGAGAAG RV: ACAGCCTGGATAGCAACGTACA	150 nM

FW, forward; RV, reverse; RT-q, reverse transcription-quantitative; AURKA, aurora kinase A; AURKB, aurora kinase B; BCL2, BCL2 apoptosis regulator; BCL2L1, BCL2 like 1; BIRC5, baculoviral IAP repeat containing 5; BNIP3, BCL2 interacting protein 3; BNIP3L, BCL2 interacting protein 3 like; BAD, BCL2 associated agonist of cell death; BAX, BCL2 associated X, apoptosis regulator; BBC3, BCL2 binding component 3; PMAIP1, phorbol-12-myristate-13-acetate-induced protein 1; CDKN1A, cyclin dependent kinase inhibitor 1A; CDKN1B, cyclin dependent kinase inhibitor 1B; GADD45A, growth arrest and DNA damage inducible gene 45 alpha; HPRT1, hypoxanthine phosphoribosyltransferase 1; ACTB, actin beta.