Figure S1. (A) SK-OV-3 cells were transfected with shRNA-Gli2 LV. The knockdown efficiency was confirmed by reverse transcription-quantitative PCR analysis. **P<0.01 vs. control. (B) ES-2 cells were transfected with Gli2A-expressing LV. The overexpression efficiency was confirmed by western blot assays. (C) Immunoblot analysis was used to detect Flag levels in the N-Shh-conditioned medium and control medium. (D) Heat map of differentially expressed genes in GANT61-treated SKOV3 cells. A more intense red color indicated higher expression. The heat map indicated that MDR1 was downregulated in the GANT61-treated SKOV3 cells compared to DMSO-treated cells. N-Shh, N-terminal 'Hedge' domain; SK-OV-3 LV-shControl, SK-OV-3 cells transfected with LV plasmid expressing control small hairpin RNA; SK-OV-3 LV-shGli2, SK-OV-3 cells transfected with LV plasmid expressing small hairpin RNA targeting Gli2; LV-Gli2A, LV expressing Gli2; Gli2A, a constitutively active form of Gli2 withe the first 984 bases of Gli2 mRNA deleted; Gli2, glioma-associated oncogene 2; MDR1, multidrug resistance protein 1; LAMA3, laminin subunit α3; LAMC2, laminin γ2; MAP2K1, mitogen-activated protein kinase 1; ITGA5, integrin subunit α5; THBS1, thrombospondin-1; COL5A1, collagen type V α1 chain gene; COL1A1, collagen type I α1; ITGB4, integrin beta 4; CCND3, cyclin D3; FZD2, frizzled 2; LV, lentivirus; GANT61, Gli-antagonist 61.

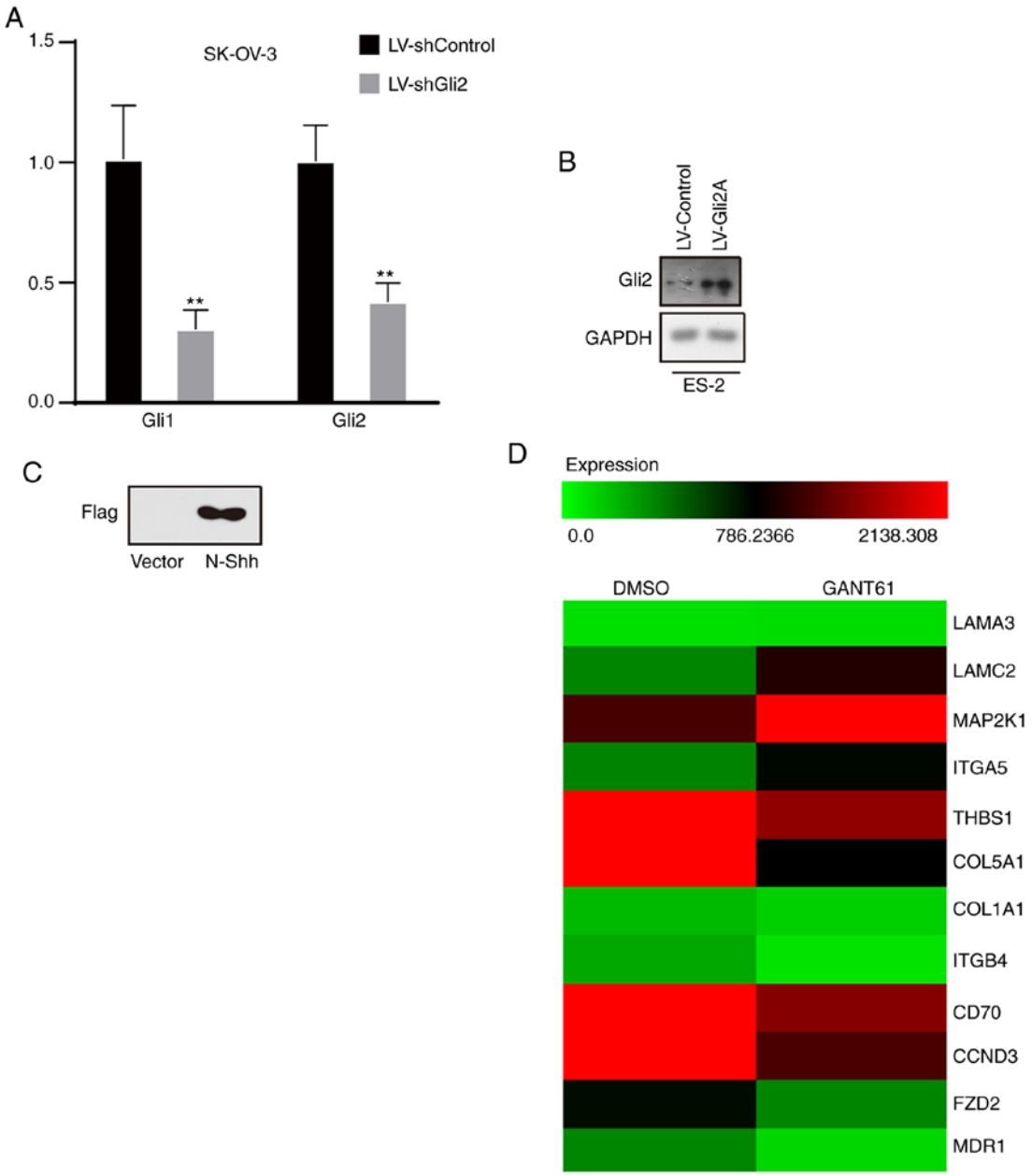

Figure S2. (A and B) SK-OV-3 cells were incubated with N-Shh for 0, 24 and 48 h. Western blot assays revealed that MDR1 expression was upregulated. Gli1 was used as a positive control. (A) Representative western blot image and (B) quantified results obtained by densitometric analysis. (C) RT-qPCR revealed a decrease in the mRNA level of MDR1 in ES-2 cells treated with GANT61 (5 μmol/l). Gli1 was used as a positive control. (D) RT-qPCR assays were used to detect Gli1 and MDR1 expression after Gli1 overexpression in SK-OV-3 cells. Values are expressed as the mean ± standard deviation (n=3). Data were analyzed by unpaired t-tests. **P<0.01, ***P<0.001 vs. control. NS, no significance; N-Shh, N-terminal 'Hedge' domain; Gli1, glioma-associated oncogene 2; MDR1, multidrug resistance protein 1; Vector, pUB6/V5-hisB vector; GANT61, Gli-antagonist 61.

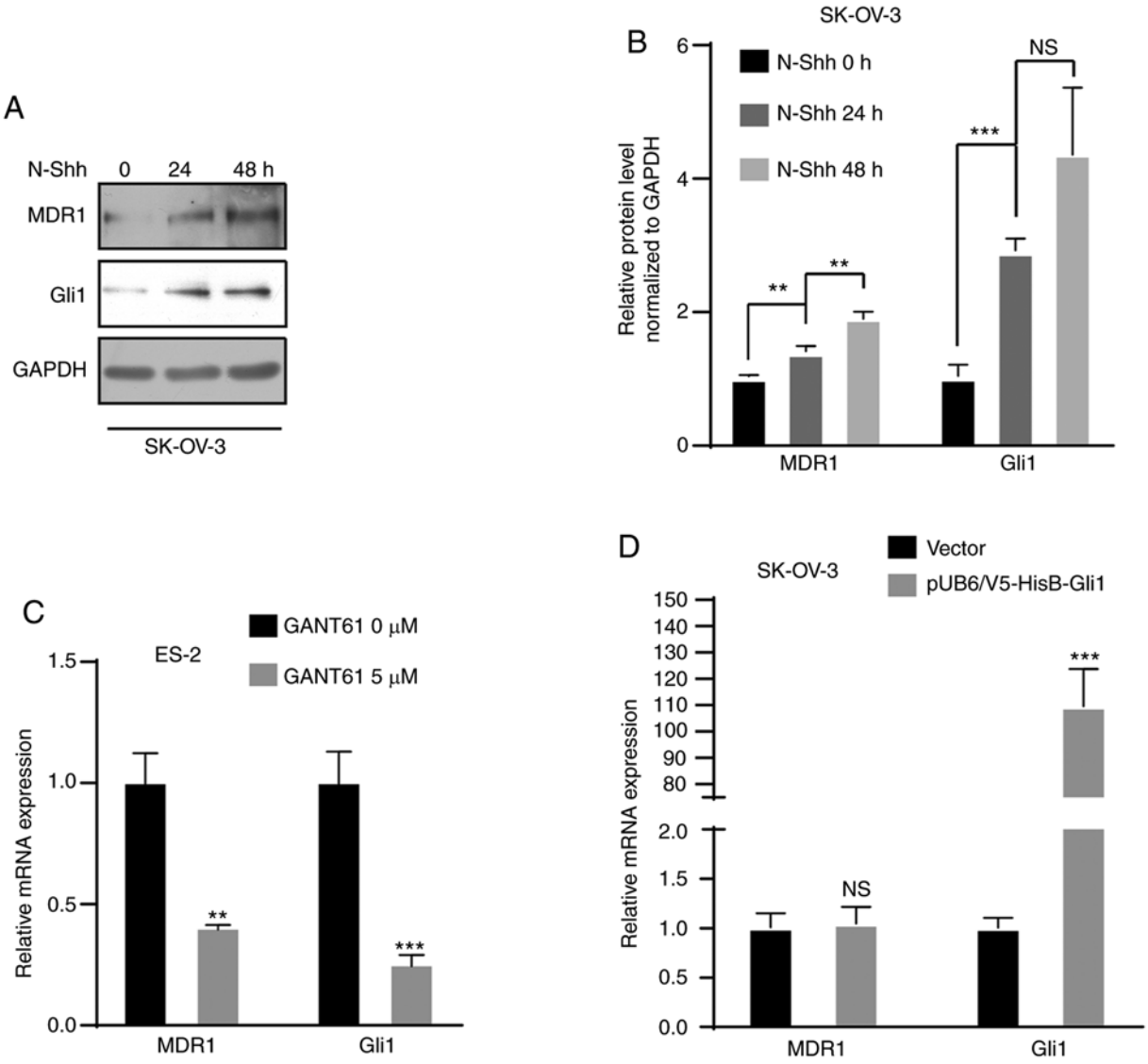

Figure S3. MTT assays indicated that verapamil, a multidrug resistance protein 1 inhibitor, increased cisplatin sensitivity in ES-2 cells with overexpression of Gli2. Cell viability was assessed by optical density measurements at 570 mm following incubation with MTT. Data were compared by analysis of variance with post-hoc test (least-significant difference). *P<0.05, **P<0.01, ***P<0.001. NS, no significance; OD570, optical density at 570 nm; DDP, cisplatin; LV-Gli2, lentivirus expressing Gli2; Gli2, glioma-associated oncogene 2.

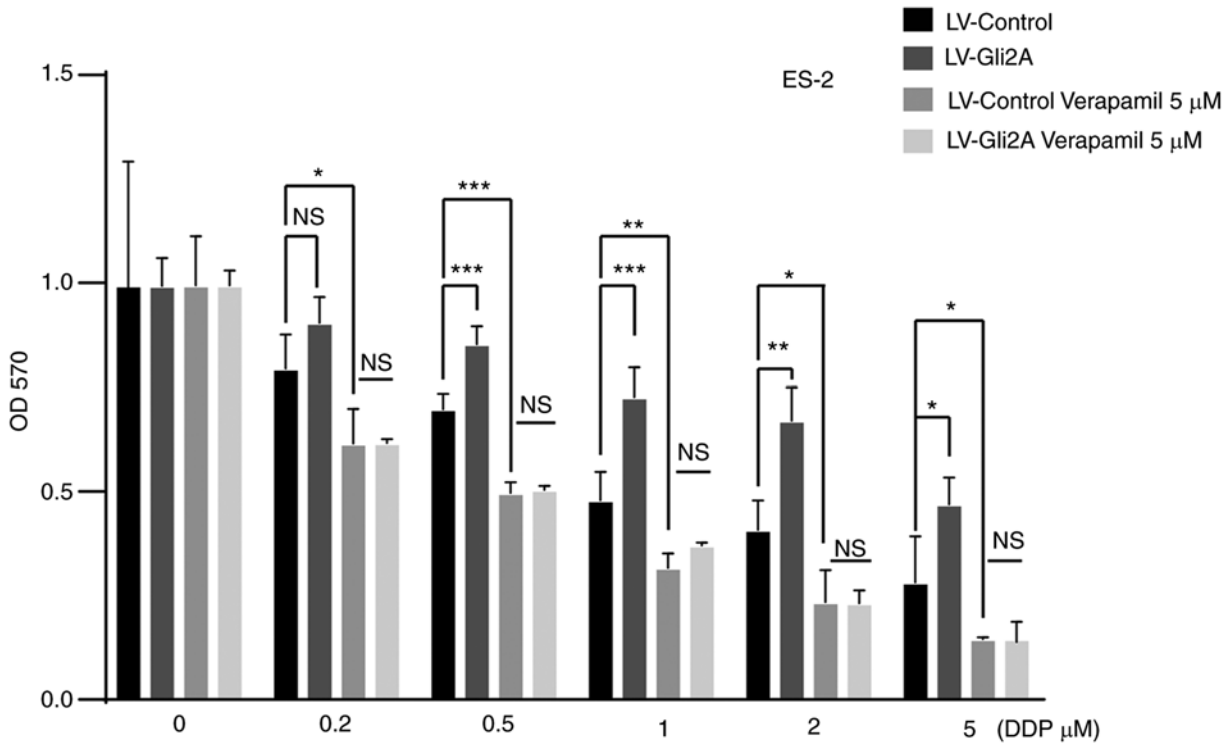

Table SI. Comparison of IC_{50} values of cisplatin on ES-2 cells under various conditions.

Treatment	Mean ± SD	P-value
ES-2 DMSO (30 μmol/l)	3.88±0.66	0.005
ES-2 cyclopamine	1.26±0.44	
ES-2 DMSO (5 μmol/l)	1.16±0.23	0.045
ES-2 GANT61	0.61±0.24	
ES-2 LV-Control	0.29±0.16	0.032
ES-2 LV-Gli2A	1.04±0.37	

Cyclopamine is an inhibitor of Smoothened. DMSO, dimethyl sulfoxide; SD, standard deviation; LV-Gli2A, lentivirus overexpressing activated Gli2; Gli2, glioma-associated oncogene 2; GANT61, Gli-antagonist 61; Gli2A, active form of Gli2 where the first 984 bases of Gli2 mRNA were deleted.