

Figure S1. Cellular morphology and identification of U87 and U251 derived GSLCs. (A and B) U87 or U251 cultured with complete medium (200 \times) (above). U87 or U251 cells shaped as atypical form 15 days after clones formation (200 \times) (middle). Most cells from (middle) formed spheres 72 h after culturing with stem cell medium (200 \times)(bottom). (C and D) Sox2, CD133 and Nestin were detected in two clones of GSLCs derived from U87 or U251 cells each by real-time PCR. Data were shown as mean \pm S.D. (E) U87 and GSLCs were seeded in 96 wells and treated with three types of chemotherapy drugs at three different concentrations for 48 h. A450 was measured by CCK-8 reagent. Suppression Ratio was calculated as $(A450_{NC}-A450)/A450_{NC}$. Data were mean \pm S.D. * P <0.05, ** P <0.01, *** P <0.005.

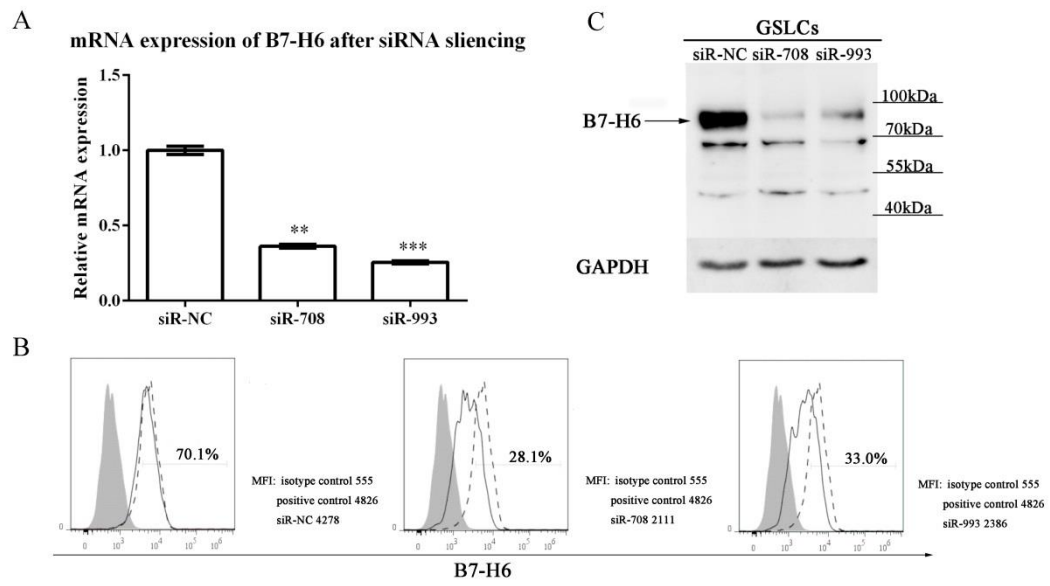


Figure S2. B7-H6 silencing by specific siRNA. (A) B7-H6 mRNA was detected by real-time PCR 72 h after transfection. (B) B7-H6 protein was detected by flow cytometry 96 h after transfection. Filled histograms represent to isotype controls while open histograms represent to staining groups. (C) B7-H6 protein was detected by western blot 96 h after transfection. Data of (A) were $\text{mean} \pm \text{S.D.}$. ** $P < 0.01$, *** $P < 0.005$.

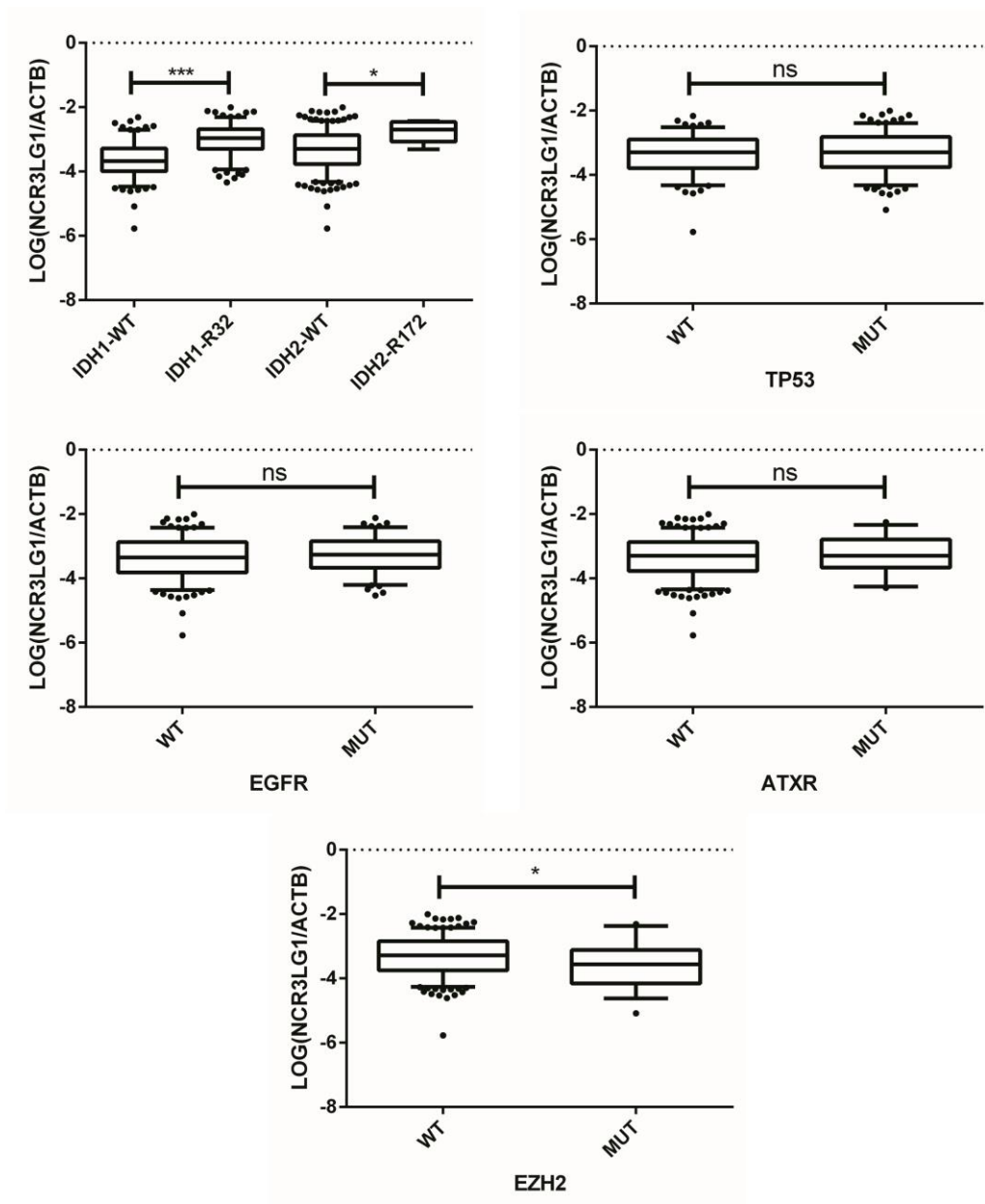


Figure S3. The corelationship between B7-H6 expression and gene mutations. T test was performed to compare the difference of B7-H6 relative expression between the samples with or without specific gene mutation based on CGGA mRNA-seq database (n=325). Data were shown as 5-95 percentile. *P<0.05, **P<0.01, ***P<0.005.

Sample ID	Gender	Age	Histologic Classification	WHO Grade	Comment
GLI-002	Male	26	Astrocytoma	II	
GLI-003	Male	37	oligoastrocytoma	II	
GLI-004	Male	53	Astrocytoma	III	
GLI-005	Female	51	Astrocytoma	III	
GLI-006	Female	25	anaplastic ependymoma	III	
GLI-007	Female	72	Astrocytoma	I	
GLI-008	Male	37	anaplastic astrocytoma	III	
GLI-009	Male	62	Astrocytoma	II-III	
GLI-010	Male	29	Astrocytoma	III	
GLI-011	Male	46	Astrocytoma	I - II	
GLI-012	Female	71	Glioblatoma	IV	
GLI-014	Male	21	Mixed glioma, oligodendroglioma	II	
GLI-015	Male	22	Oligodendroglioma	II	
GLI-016	Female	45	Astrocytoma	II	
GLI-017	Male	12	Astrocytoma	III	
GLI-018	Male	46	Astrocytoma	I - II	
GLI-020	Male	48	Astrocytoma	I	
GLI-021	Male	32	Anaplastic oligoastrocytoma	III	
GLI-022	Male	12	Pilocytic astrocytoma	I	
GLI-023	Male	66	Astrocytoma	II-III	
GLI-024	Male	69	Astrocytoma	II	
GLI-025	Male	46	Astrocytoma	II	
GLI-026	Male	33	Astrocytoma	II	
GLI-027	Male	53	Astrocytoma	III-IV	
GLI-028	Female	49	Oligodendroglioma	II-III	weak staining in Fig.1A
GLI-029	Female	61	Glioblatoma	IV	
GLI-030	Female	41	Astrocytoma	III	
GLI-031	Male	43	Astrocytoma	II	
GLI-032	Male	55	Astrocytoma	III	
GLI-033	Male	63	Glioblatoma	IV	
GLI-034	Female	36	Astrocytoma	III	strong staining in Fig.1A
GLI-036	Male	45	Astrocytoma	III	moderate staining in Fig.1A
GLI-037	Male	56	Astrocytoma	III	
GLI-038	Female	50	Astrocytoma	III	
GLI-039	Male	53	Glioblatoma	IV	
GLI-040	Male	64	Astrocytoma	III	
GLI-041	Male	51	Astrocytoma	III	

Table S1. Information of tissue samples used in this study.