

Table S1. The clinical pathologic information of the clinical glioma samples.

NO	Age (year)	Sex	Latency	Size(cm)	Grade	Ki-67 (%)	Length of being in hospital)	Mean IOD of FOXG1
1	53	M	5y	4.5×3.5×1	II	4	*	*
2	57	M	20d	3×2.5×1.2	IV	40	*	*
3	49	M	1m	4×2×1.5	IV	20	*	*
4	44	F	20d	3.7×2.5×1	IV	20	*	*
5	28	M	4m	2×1.5×0.7	II	<3	*	*
6	53	F	*	2×2.5×1.5	III-IV	40	*	*
7	26	M	*	7.5×5.5×4	II	<5	*	*
8	31	F	15d	4×3×1.3	II	5	*	*
9	68	M	2m	3.5×2.4×1.6	IV	10	*	*
10	31	M	9m	2.9×4.3×3.1	III-IV	5	*	*
11	56	F	15d	4×2.5×1.7	IV	40	*	*
12	42	M	7d	5×3×1.5	IV	10	*	*
13	63	M	*	5.5×3×1.3	IV	60	*	*
14	57	M	*	5.5×3.8×1.7	IV	30	*	*
15	47	F	*	5×2.5×0.6	II	5	*	*
16	4	F	2.5y	6.9×5.0×4.8	I	*	18	4064.016
17	18	F	6m	3.2×2.8	I	1	15	628.6616
18	52	F	*	4.5×2.5×1.5	I	<1%	*	2001.147
19	57	M	6m	4.4×3.7×3.2	II	5	15	2924.186
20	39	M	1m	5.58×5.15×2.75	II	*	14	3514.833
21	36	M	1m	3×3	II	1	71	44360.61
22	29	M	6	6×5×4	II	1	18	12843.78
23	46	M	2y	4×5×3	II	*	14	360.1528
24	48	F	3y	5×4.6	II	5.00	30	448.3513
25	40	M	5y	6×3.3×5	II	1.00	33	830.7893
26	4	M	1	6.9×4.5×5.4	II	*	38	1431.219
27	21	M	4m	7.7×7×6.2	II	10	14	551.204
28	56	M	2y	4×3×4	II	2	20	1482.117
29	15	F	1y	5.6×4.4	II	*	14	3441.622
30	54	F	2y	4.5×4.8	II	10	17	1847.98
31	38	M	2m	4.9×3.3×3.4	II	1	13	2180.694
32	55	M	2m	4.2×6.7	III	5	72	3919.931
33	18	F	5d	4.5×3.7	III	*	11	830.7893
34	44	M	2y	8.1×7.6	III	*	14	17492.19
35	54	F	20d	3.5×4×3.0	III	5	32	16300.55
36	55	M	20d	4.7×2.5×4.0	III	1	51	16194.3
37	55	M	9m	3×3.5	III	*	13	18248.49
38	54	F	20d	3.5×4×3	III	5	32	7445.196

39	57	F	10y	5×4.5×4.5	III	20	16	3542.219
40	48	F	1y	2.5×2.7	III	5	19	21981.99
41	48	F	2y	3×4×4	III	10	16	16756.72
42	34	F	7y	7×9×9.4	III	5	16	23139.82
43	33	F	1m	2.8×5.3×4.1	III	2	28	26273.56
44	43	M	4m	5×5.5×6	III-IV	5	12	34226.12
45	51	M	2y	2.8×3.2×3.6	IV	10	13	35731.56
46	65	F	7d	9.8×4.5	IV	20	20	4673.896
47	52	M	1w	5.5×6×5.5	IV	*	28	33916.75
48	56	M	1m	6×3.5	IV	20	14	29771.33
49	45	F	1m	2.6×3.8	IV	20	18	26514.55
50	27	F	3m	4×5×5.5	IV	80	18	7082.854
51	49	F	1m	2.7×2.4×2.1	IV	10	16	7682.753
52	53	M	10d	3.2×2.2×2.6	IV	10	18	11681.25
53	63	M	10m	3.3×6.6×5.4	IV	5	21	9678.266
54	55	M	10d	3.5×4.	IV	20	14	29618.98
55	4	F	2.5y	6.9×5×4.8	IV	*	18	4064.016
56	45	M	30d	3.2×4	IV	30	15	9131.292
57	39	M	1.5y	5.5×4.8×4.1	IV	6	19	29087.64
58	38	M	6m	7.5×4.8×5.7	IV	10	18	32447.81

M, Male; F, Female; *, no available data; d, day; m, month; y, year. No.1-15 is the fresh glioma samples

from clinic. No.1-15 were fresh collected samples that were used for western blotting, real-time PCR and

IHC. No.16-58 were formalin-fixed and paraffin-embedded glioma specimens. They were only used for

IHC.

Table S2. The classified statistic of 43 glioma patients according to clinical pathological features.

Factor	Variable	N (%)	Mean IOD of FOXG1 (Mean ± SEM)	p value*
Histology	low grade	16 (37.2%)	5181.96±2716.14	0.0008 ^a
	high grade	27 (62.8%)	17682.77±2142.87	
Ki-67	<10%	19 (44.1%)	13470.93±3022.65	0.427 ^b
	≥10%	14 (32.6%)	15502.45±3380.29	
	no data	10 (23.3%)	8736.40±3474.00	
Grade	I	3 (7%)	2231.27±998.35	0.005 ^b

	II	13 (30.2%)	5862.88 ±3332.49	
	III	12(27.9%)	14343.81 ±2418.03	
	IV	15(34.9%)	20353.93 ±3244.71	
Gender	Female	19 (44.2%)	25397.0711 ±3513.94286	0.078 ^a
	Male	24 (55.8%)	20000.1071 ±1958.32778	
Age	<45	19 (44.2%)	13078.53 ±3245.01	0.983 ^a
	≥ 45	24 (55.8%)	12993.9 ±2316.72	
Length of being in hospital	≤ 20d	31 (72.1%)	12824.04 ±2140.26	0.689 ^a
	>20d	11 (25.6%)	14618.13 ±4424.40	
	no data	1(2.3%)	2001.147	

^aStudent's t-test;

^bOne-way ANOVA.

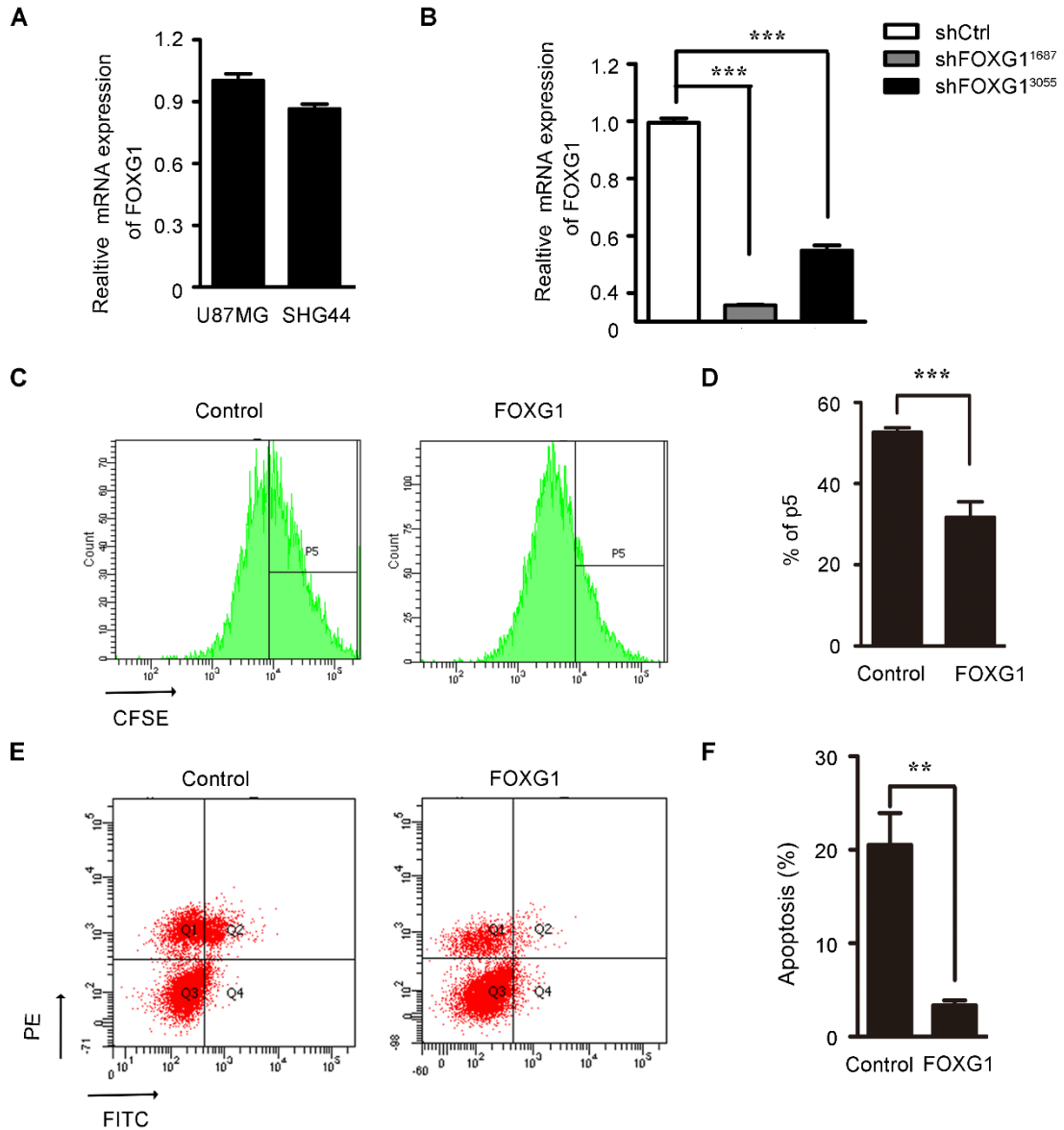


Figure S1. FOXG1 affected glioma cell proliferation and cell apoptosis. (A) Real-time PCR analysis of FOXG1 expression in glioma cell lines. The expression of FOXG1 in U87MG was normalized as 1 in real-time PCR. GAPDH was used as an internal control. (B and C) CFSE proliferation assay was used to assess cell proliferation of infected SHG44 cells. (D) Real-time PCR analyses verified the knockdown efficiency of two lentivirus-mediated shRNA systems. The lentivirus-mediated shCtrl was used as control. (E) Cell apoptosis was determined by flow cytometry using FITC-Annexin V/PI staining in SHG44 cells.

The Annexin V⁺/PI⁺ and Annexin V⁺/PI⁻ were considered to be apoptotic cells. **(F)** The quantitative data of the rate of apoptotic cells as detected by flow cytometry. All data were shown as mean \pm SEM. For all statistics analyses in this figure, **, P < 0.01; ***, P < 0.001.