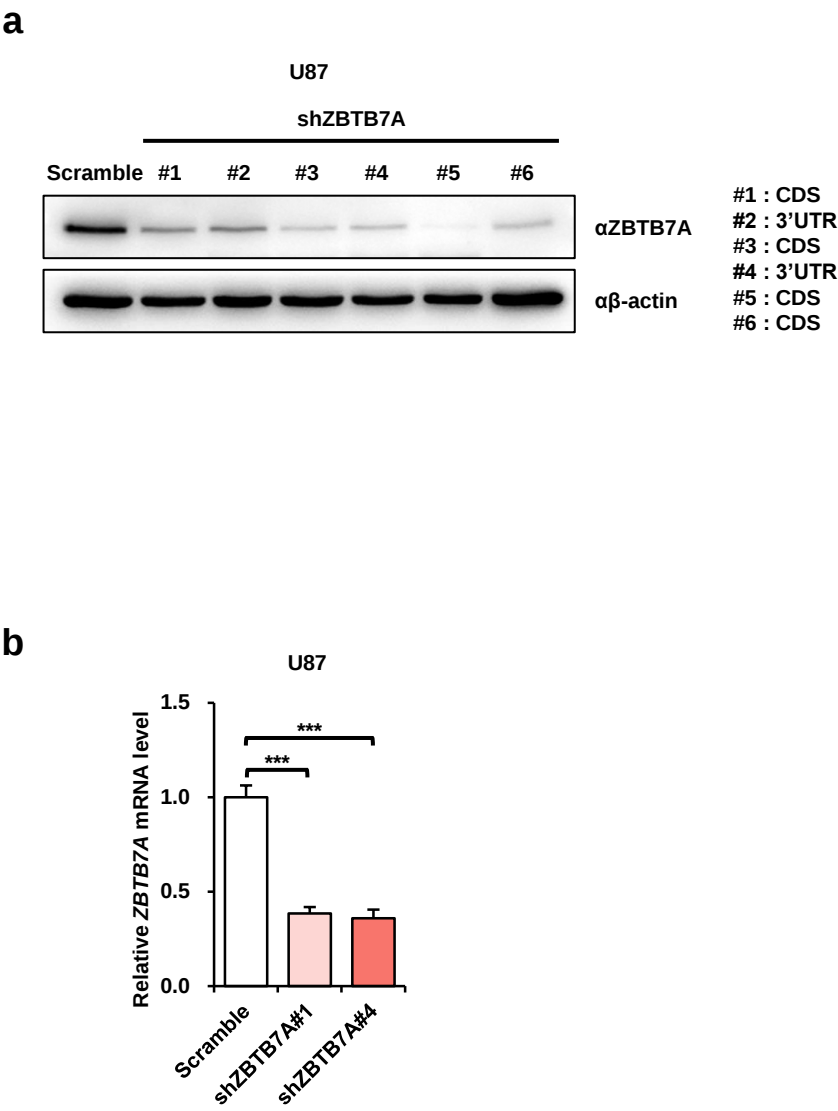


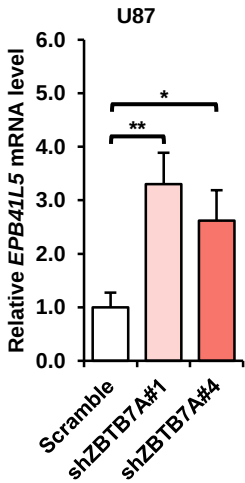


Supplementary Figure 1. Expression of ZBTB7A knockdown U87 cells. **a, b** Western blot and qPCR analysis of ZBTB7A silencing in U87 cells. *** $p < 0.001$.

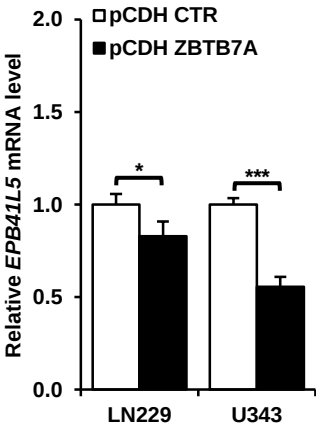
a

Gene Symbol	Fold change	estimate	statistic	p.value	parameter	conf.low	conf.high	method	alternative
APOE	42.780	-0.04	-0.91	0.37	536.00	-0.12	0.05	Pearson's product-moment correlation	two.sided
MDK	5.319	-0.19	-4.58	0.00	536.00	-0.27	-0.11	Pearson's product-moment correlation	two.sided
MMP9	4.310	-0.05	-1.16	0.25	536.00	-0.13	0.03	Pearson's product-moment correlation	two.sided
IL27RA	3.537	0.11	2.67	0.01	536.00	0.03	0.2	Pearson's product-moment correlation	two.sided
SEMA3A	3.023	0.02	0.53	0.60	536.00	-0.06	0.11	Pearson's product-moment correlation	two.sided
FGF7	2.701	0.02	0.53	0.60	536.00	-0.06	0.11	Pearson's product-moment correlation	two.sided
IL1B	2.612	0.06	1.43	0.15	536.00	-0.02	0.15	Pearson's product-moment correlation	two.sided
PAK3	2.609	0.10	2.38	0.02	536.00	0.02	0.19	Pearson's product-moment correlation	two.sided
ADAM8	2.597	0.17	3.88	0.00	536.00	0.08	0.25	Pearson's product-moment correlation	two.sided
SERPINF1	2.593	0.01	0.28	0.78	536.00	-0.07	0.1	Pearson's product-moment correlation	two.sided
TGFB2	2.480	0.03	0.80	0.43	536.00	-0.05	0.12	Pearson's product-moment correlation	two.sided
HYAL1	2.243	0.12	2.89	0.00	536.00	0.04	0.21	Pearson's product-moment correlation	two.sided
THBS1	2.114	0.06	1.40	0.16	536.00	-0.02	0.14	Pearson's product-moment correlation	two.sided
IL33	2.111	-0.20	-4.63	0.00	536.00	-0.28	-0.11	Pearson's product-moment correlation	two.sided
EPB41L5	2.082	-0.20	-4.67	0.00	536.00	-0.28	-0.11	Pearson's product-moment correlation	two.sided
ITGA2	2.077	0.14	3.39	0.00	536.00	0.06	0.23	Pearson's product-moment correlation	two.sided
ACVRL1	2.027	0.09	2.11	0.04	536.00	0.01	0.17	Pearson's product-moment correlation	two.sided
CXCL8								Gene not available for this dataset	

b

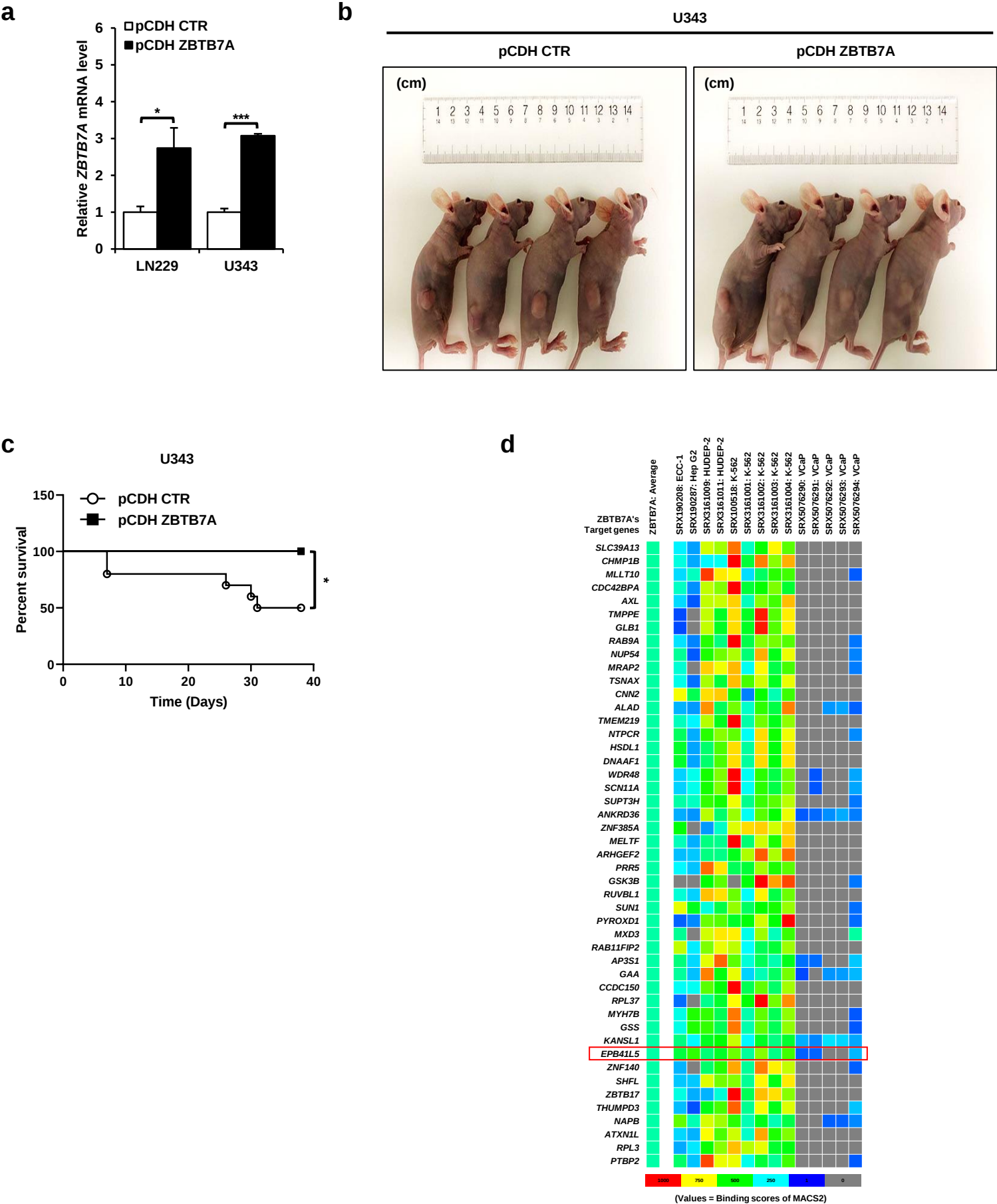


c



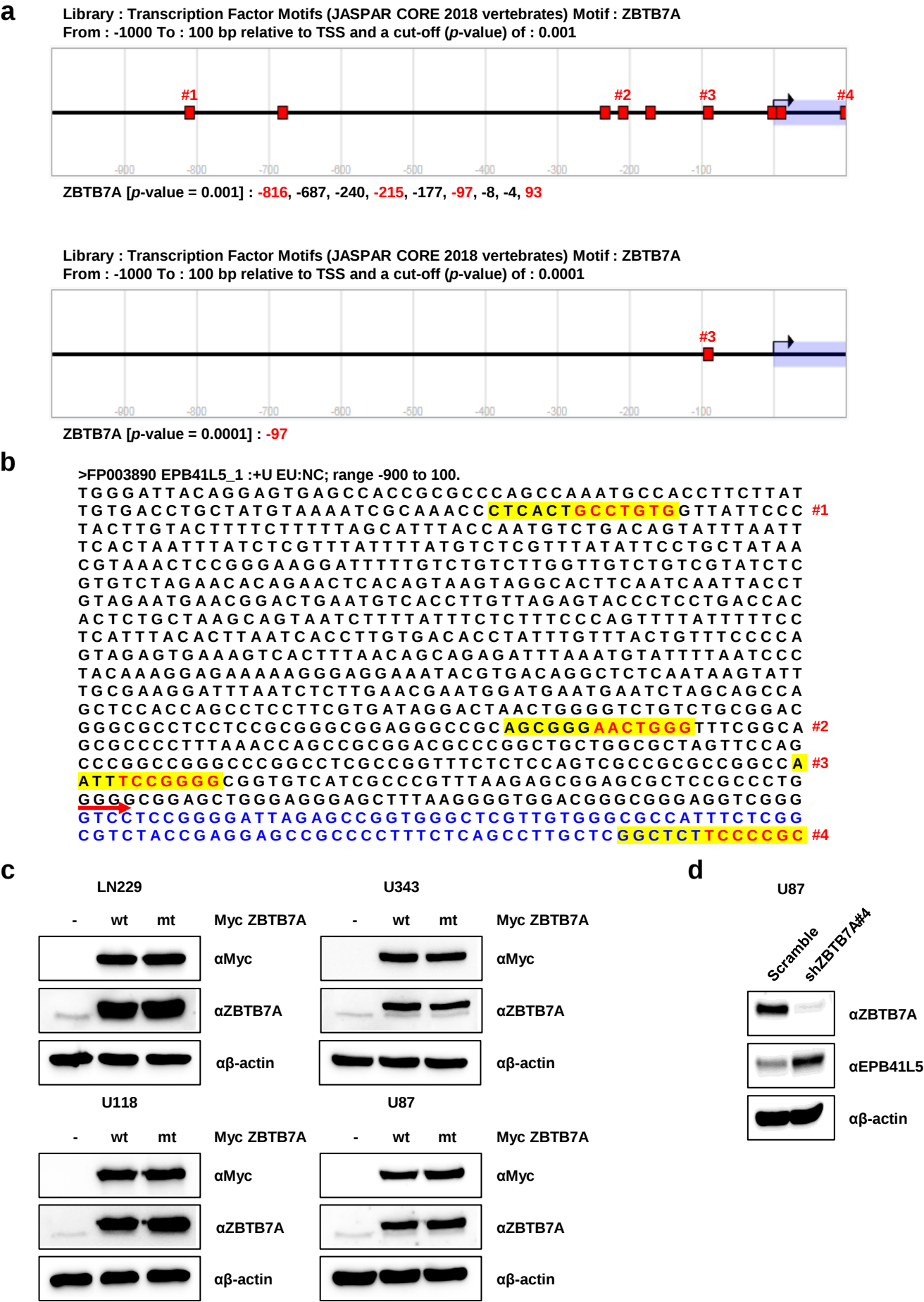
Supplementary Figure 2. Reverse correlation targets with ZBTB7A in patient samples. **a** Correlation of 18 overlapping genes with ZBTB7A in the TCGA-GBM dataset (Gliovis). **b, c** *EPB41L5* mRNA level in shZBTB7A U87 cells and pCDH ZBTB7A LN229, U343 cells. **p* < 0.05, ***p* < 0.01, ****p* < 0.001

Supplementary Figure 3



Supplementary Figure 3. Reduction of subcutaneous tumor by ZBTB7A overexpression. **a** mRNA level of *ZBTB7A* in pCDH *ZBTB7A* LN229, U343 cells. **b** Tumor size confirmed 5 weeks after subcutaneous injection of pCDH *ZBTB7A* U343 cells (n = 4 mice/group). **c** The survival rate of a mouse model injected subcutaneously with pCDH *ZBTB7A* U343 cells. **d** Target gene and MACS2 binding score of potential *ZBTB7A* at ± 1 kb distance using CHIP-Atlas. **p* < 0.05, ****p* < 0.001

Supplementary Figure 4



Supplementary Figure 4. Schematic diagram of the binding site of ZBTB7A in the *EPB41L5* promoter region. **a** Predicted binding site to which the ZBTB7A motif can bind in the *EPB41L5* promoter region (-900 to 100) (EPD). **b** *EPB41L5* promoter sequence from -900 to 100 region (EPD). **c** Protein levels of Myc ZBTB7A wt and mt in LN229, U343, U118 and U87 cells. **d** Western blot analysis of shZBTB7A#4 U87 cells.