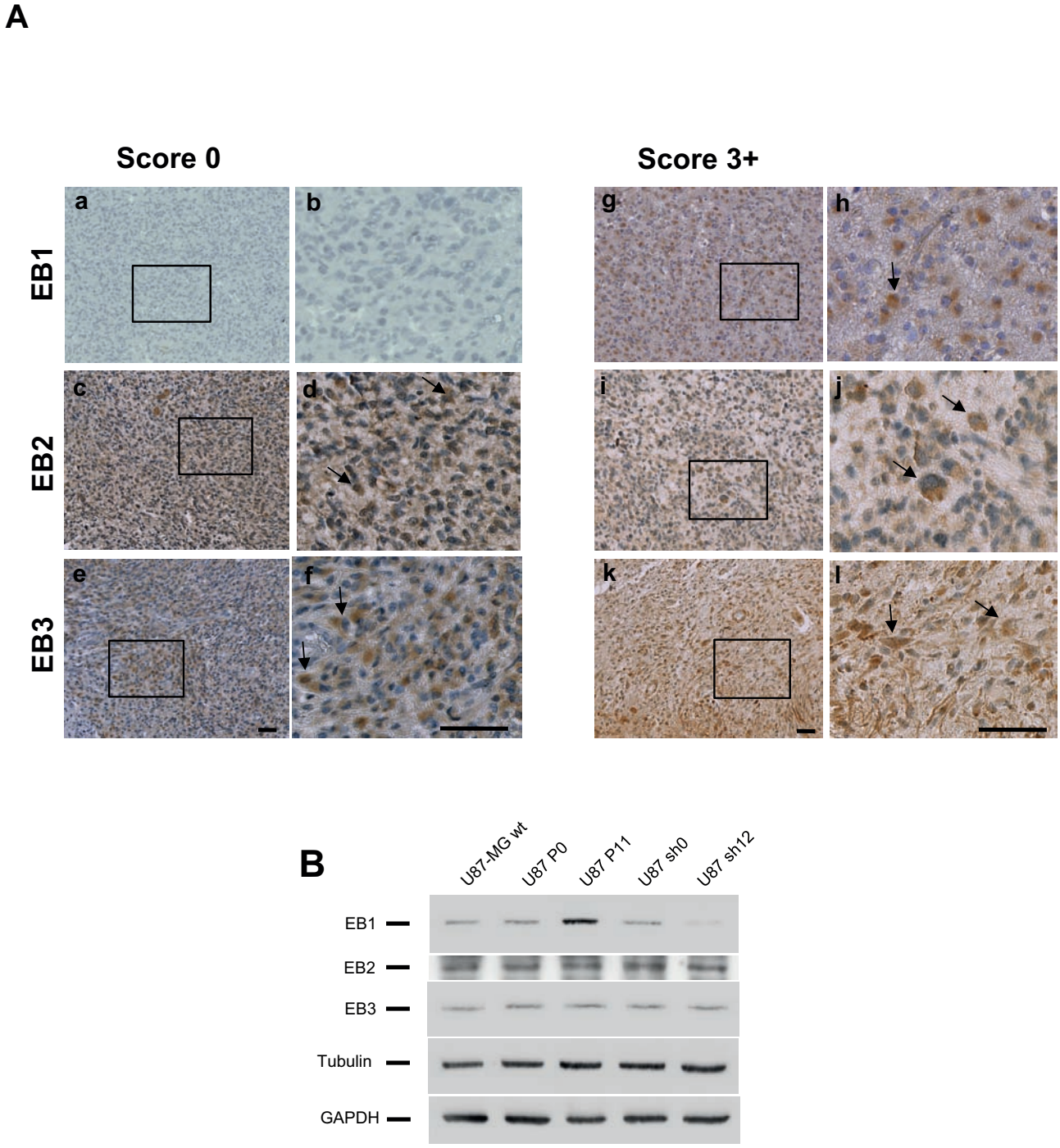
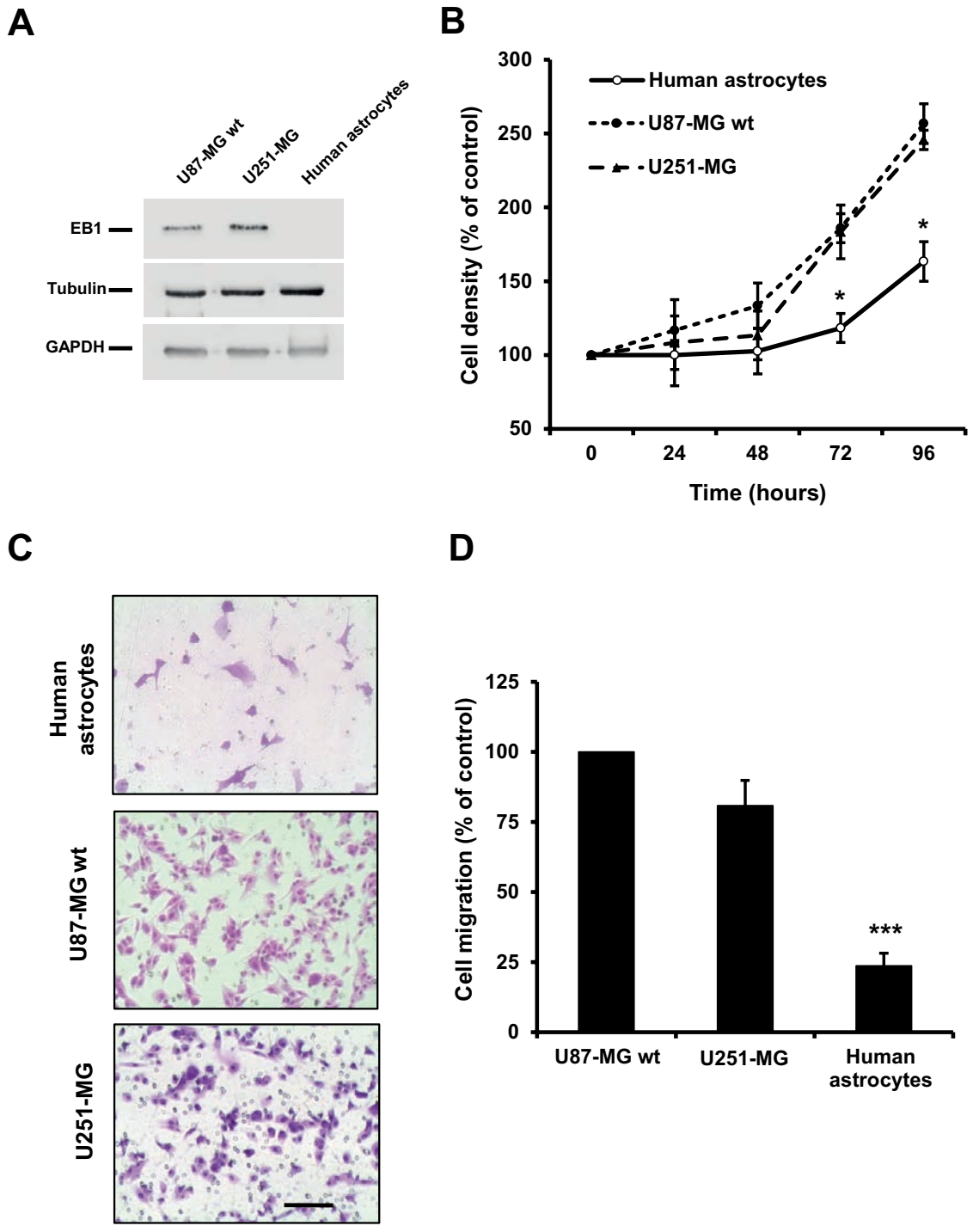
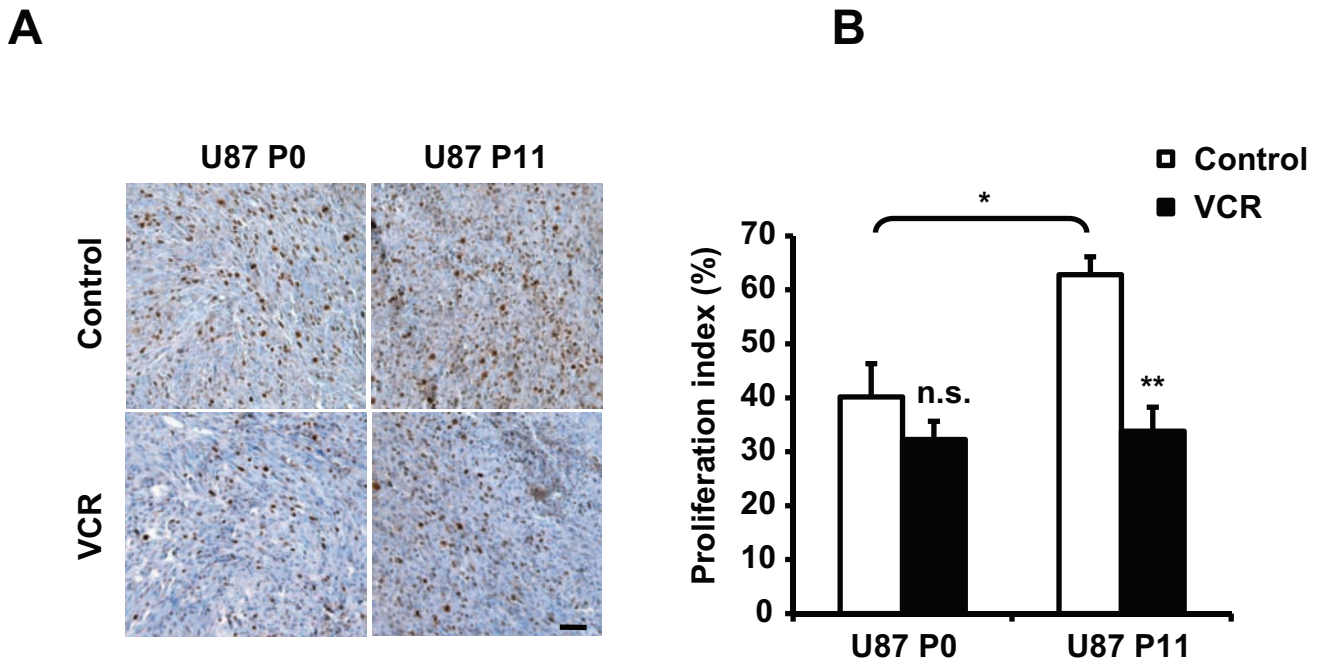
SUPPLEMENTARY FIGURES, TABLE, MOVIES



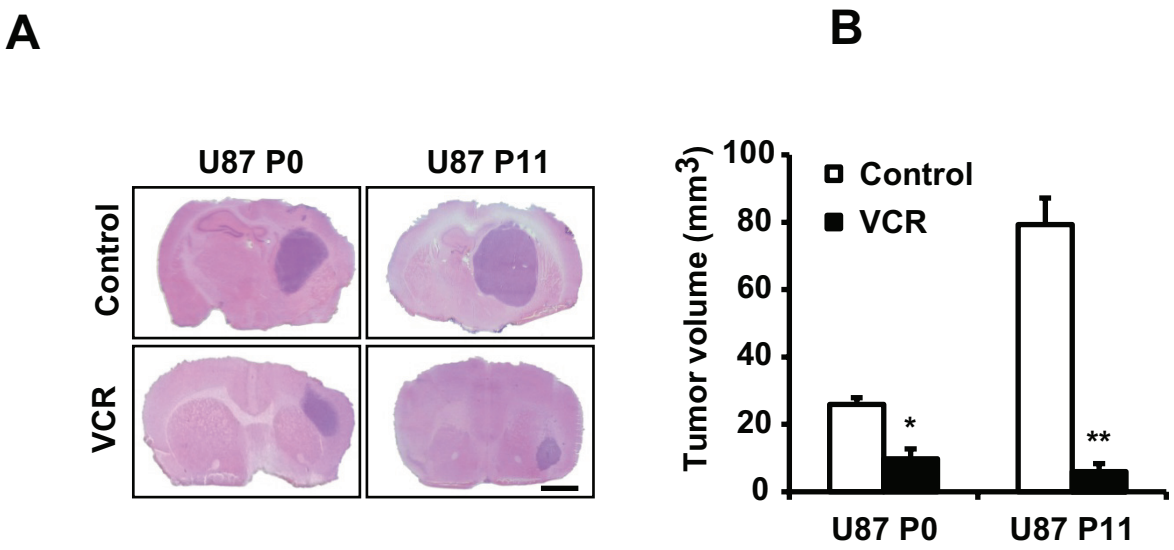
Supplementary Figure S1: Expression of EB2 or EB3 proteins according to EB1 scoring in glioblastoma. **(A)** Immunohistochemical analysis of expression of EB2 (c, d and i, j) and EB3 (e,f and k,l) in paraffin sections of glioblastoma tissue with low (score 0) or high expression (score 3+) of EB1 (a,b and g,h). Arrows on magnified images show the cytoplasmic localization of EB proteins in glioma cells (right columns). *Bar=50 μm*. **(B)** Western blot analysis of EB2 and EB3 levels in EB1 down-regulating clone (U87 sh12), EB1 overexpressing clone (U87 P11) or control clones (U87-MG wt, sh0 and P0).



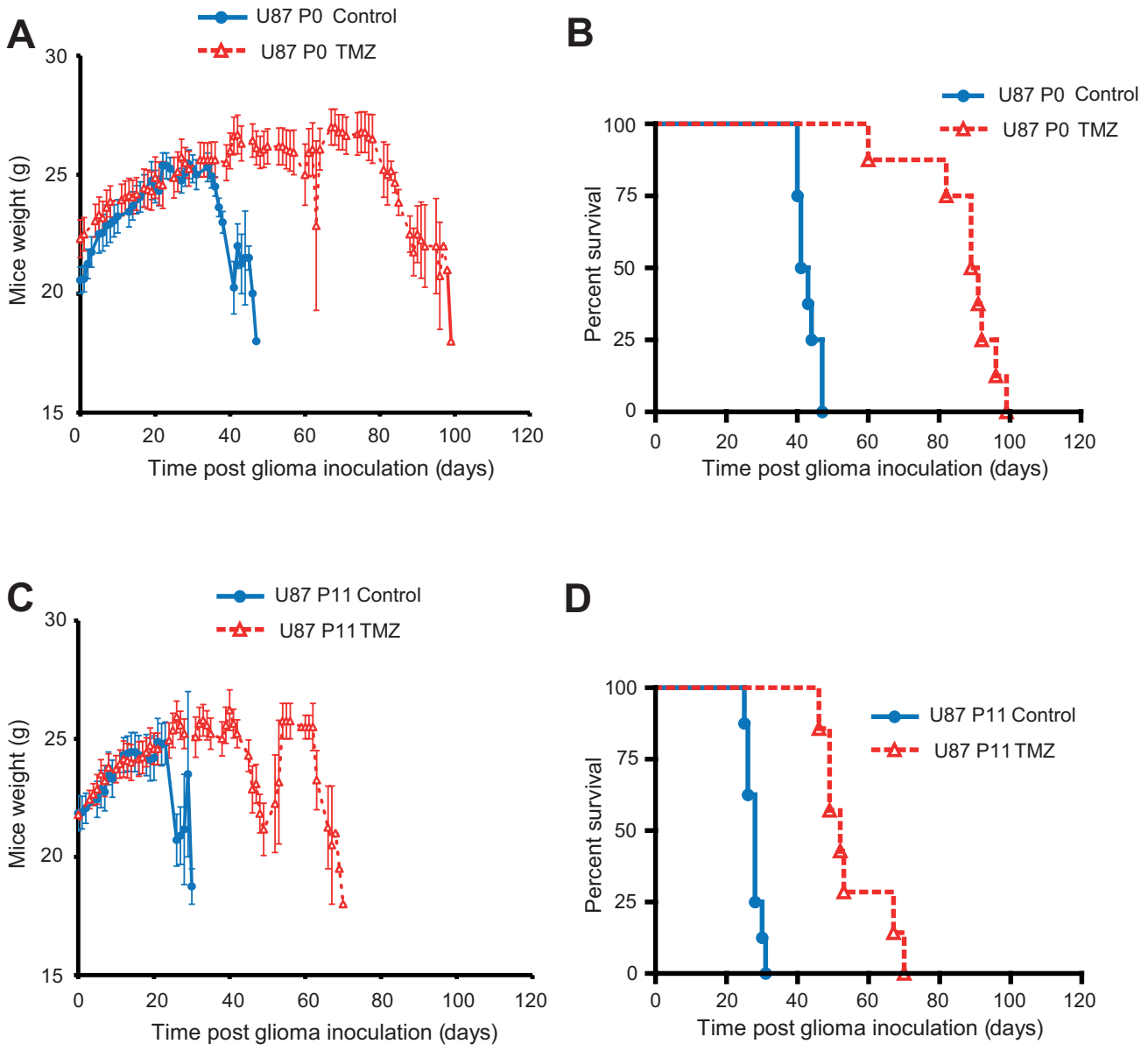
Supplementary Figure S2: undetectable level of EB1 expression in astrocytes is associated with poor migration and growth. **(A)** Analysis of EB1 expression level by Western blot of normal human astrocytes in comparison with U87-MG wt and U251-MG wt cells. **(B)** Sulforhodamine B cell density assay of normal human astrocytes in comparison with U87-MG wt and U251-MG wt cells. At each time, analysis were performed in sixplicates. At least three independent experiments were performed for each condition. Bar ± SEM. (*) indicates significant difference from U87-MG wt control cells:*$p < 0.05$. **(C)** Representative images of migratory normal human astrocytes in comparison with U87-MG and U251-MG cells, using the transwell migration assay (crystal violet staining, magnification of 100×). **(D)** Quantification of migratory cells, as determined by counting the cell number under the microscope with a magnification of 100×, in the transwell migration assay. At least three independent experiments were performed for each condition. Bar ± SEM. (*) indicates significant differences from U87 control cells: ***$p < 0.001$.



Supplementary Figure S3: EB1 overexpression increases proliferation rate of U87-MG cells *in vivo* and sensitizes glioblastoma tumors to VCR anti-proliferative effects. (A) Ki-67 staining of proliferative cells in EB1-overexpressing U87 P11 or control U87 P0 tumors and intravenously treated with VCR or vehicle. *Bar = 50 μm*. **(B)** Proliferation index in the four groups. Bar ± SEM. (*) indicates significant differences from control:*$p < 0.05$; ** $p < 0.005$; n.s.: non significant.



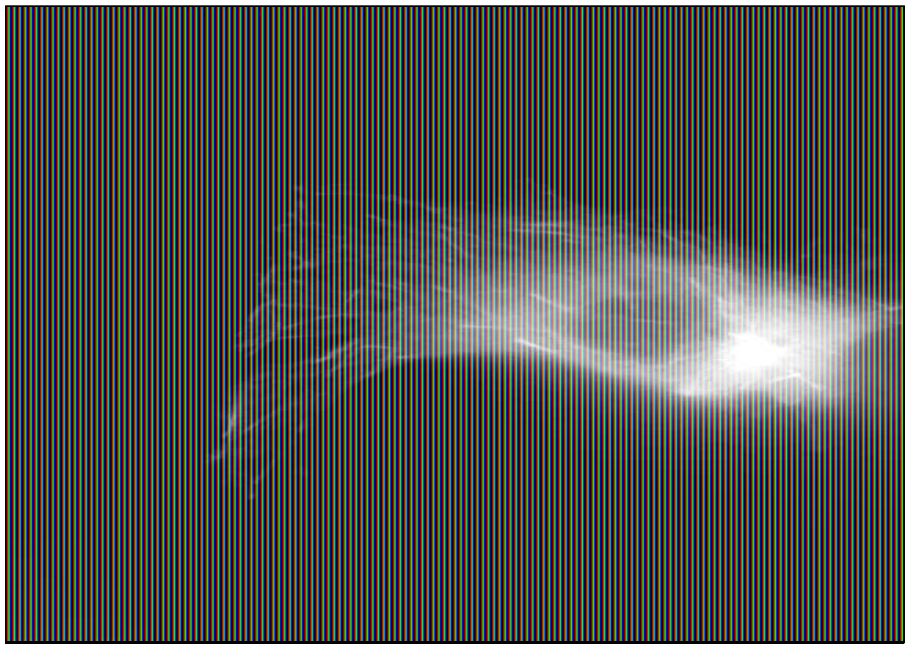
Supplementary Figure S4: EB1 overexpression sensitizes glioblastoma cells to *Vinca*-alkaloid anti-tumor growth effect. (A) Typical coronal sections of brains from mice intracerebrally grafted with EB1-overexpressing U87 P11 cells or control U87 P0 cells and intravenously treated with VCR or vehicle. Brains were recovered 21 days following cell transplantation. *Bar = 1 mm*. **(B)** Tumor volumes (mean ± SEM of 3 animals per treatment group). *$p < 0.05$; **$p < 0.005$.



Supplementary Figure S5: EB1 overexpression does not sensitize glioblastoma cells to TMZ anti-tumor growth effect. Mean weights **(A, C)** and Kaplan–Meier survival plot **(B, D)** of control U87 P0 or EB1-overexpressing U87 P11 bearing mice intravenously treated with TMZ or vehicle. Bar ± SEM.

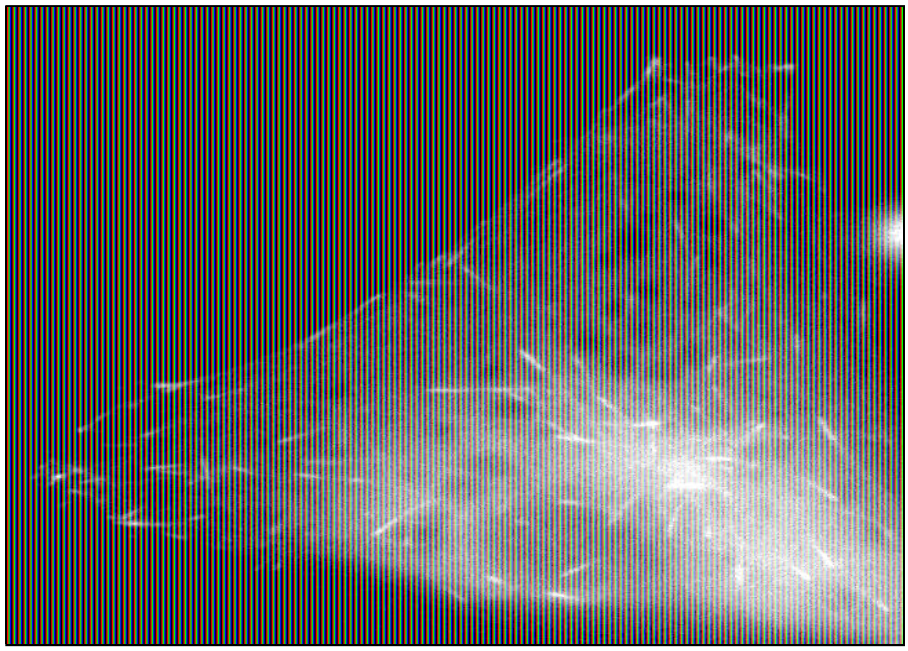
Supplementary Table S1. Estimate of Median OS and PFS according to EB1 glioblastoma sample scoring

EB1 score	Median OS			Median PFS		
	Estimate (months)	95% Confidence Interval		Estimate (months)	95% Confidence Interval	
		Lower Bound	Upper Bound		Lower Bound	Upper Bound
0	25.62	5.714	45.526	13.653	5.143	22.162
1	13.421	12.524	14.319	7.901	6.487	9.315
2	10.909	8.992	12.826	5.157	3.761	6.553
3	10.248	6.914	13.582	3.24	1.062	5.418

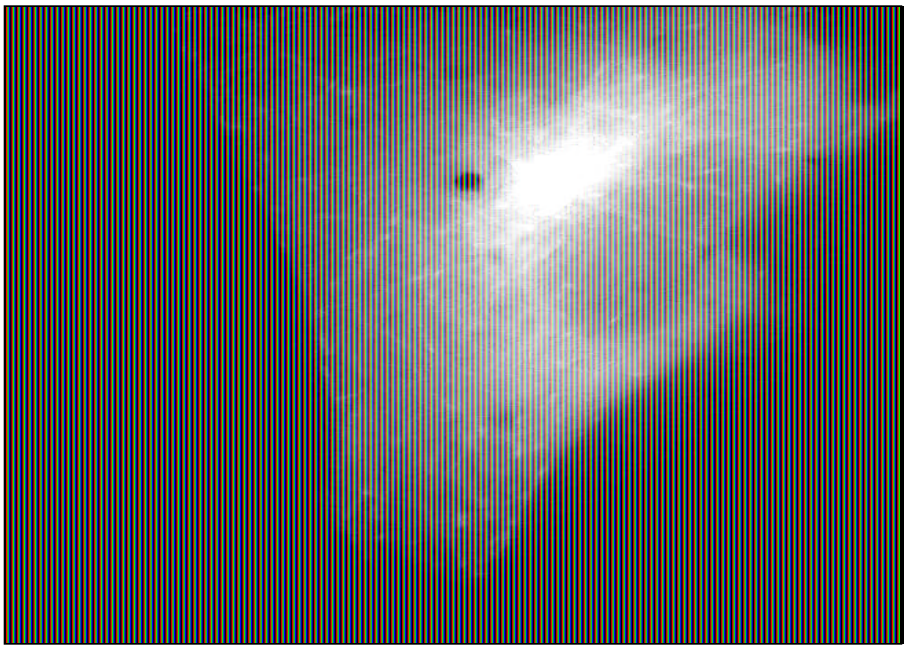


Supplementary Movie S1: U87-P0 clone EB3-GFP transfected, control (10 frames/s).

Supplementary Movie S2: U87-P0 clone EB3-GFP transfected, treated with 1.6 nM VCR for 4 h (10 frames/s).



Supplementary Movie S3: U87-P11 clone overexpressing EB1, EB3-GFP transfected, control (10 frames/s).



Supplementary Movie S4: U87-P11 clone overexpressing EB1, EB3-GFP transfected, treated with 1.6 nM VCR for 4 h (10 frames/s).