

**Full title:**

**GADD45A plays a protective role against temozolomide treatment in glioblastoma cells**

**Short title:**

GADD45A protects glioblastoma cells from temozolomide treatment

**Authors:**

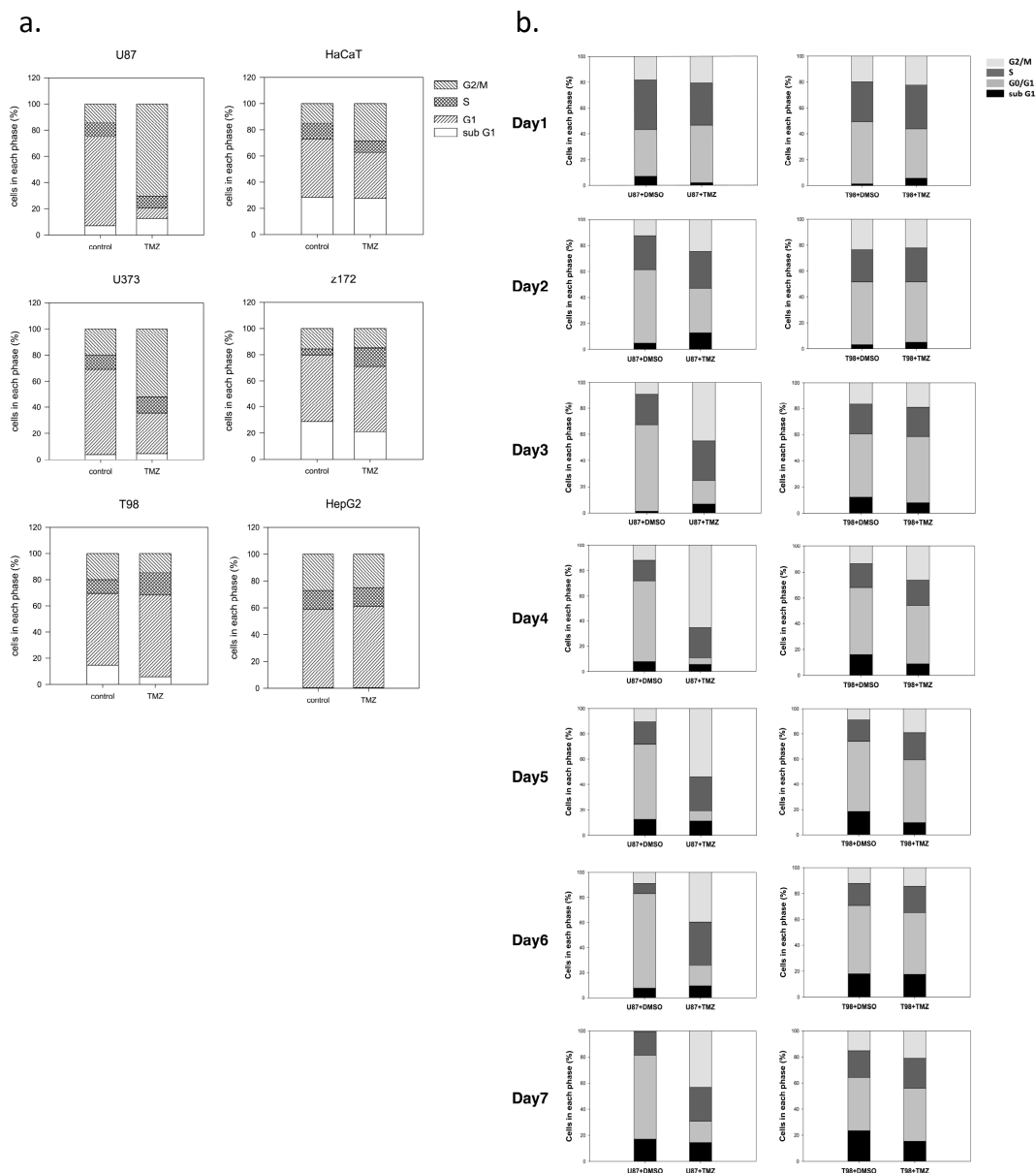
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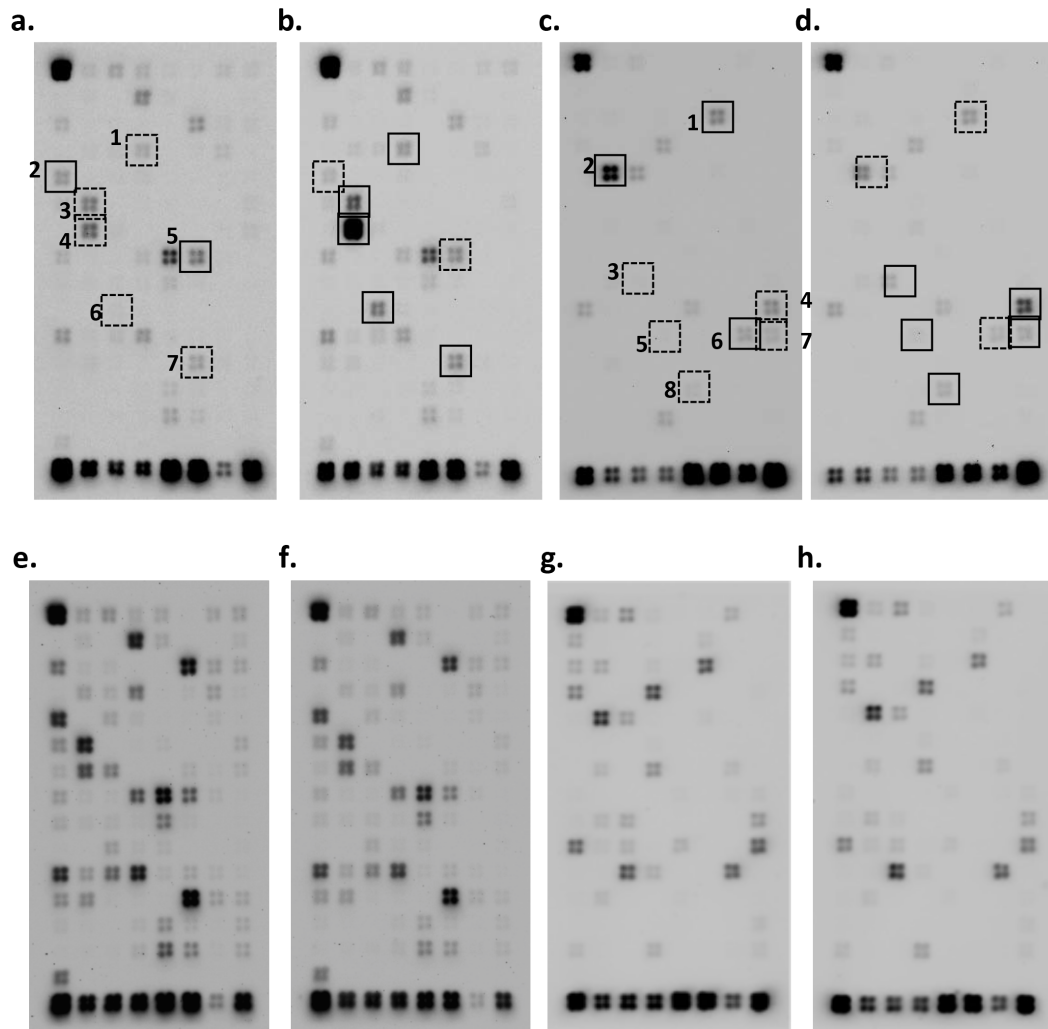
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## Supplementary information



**Supplementary Figure 1. Cell cycle progression after TMZ treatment of human GBM or non-GBM cell lines analysis by FACS.** Bar charts illustrating the proportion of cells at different stages in the cell cycle derived from the decomposition of flow cytometry histograms. **(a)** Different human cells were treated with 25 $\mu$ g/ml TMZ for 4 days. U87, U373, T98: GBM cell lines; HaCaT: keratinocyte cell line; Z172: cervical epithelial cell line; Hep G2: hepatocellular carcinoma cell line. **(b)** U87 and T98 cells were treated with 25 $\mu$ g/ml TMZ for different time frames: day 1 to

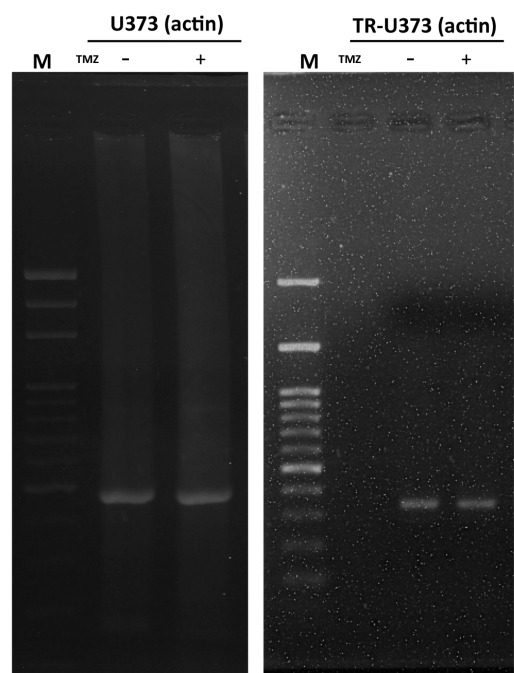
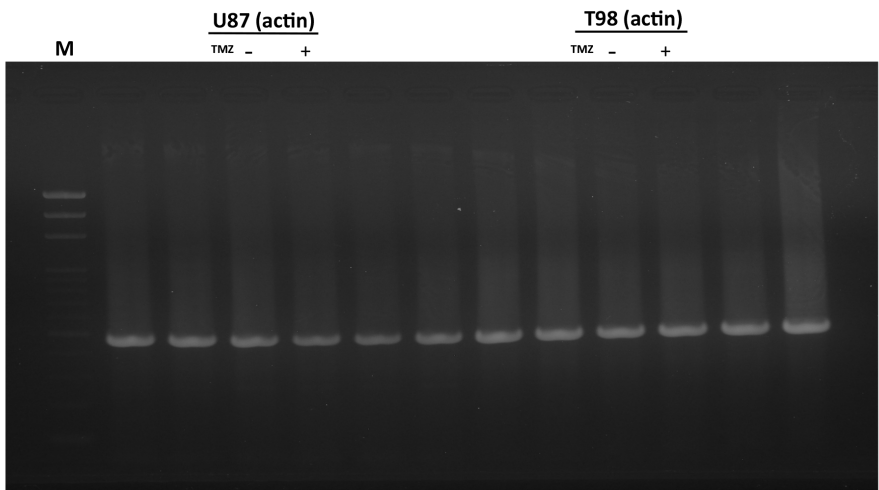
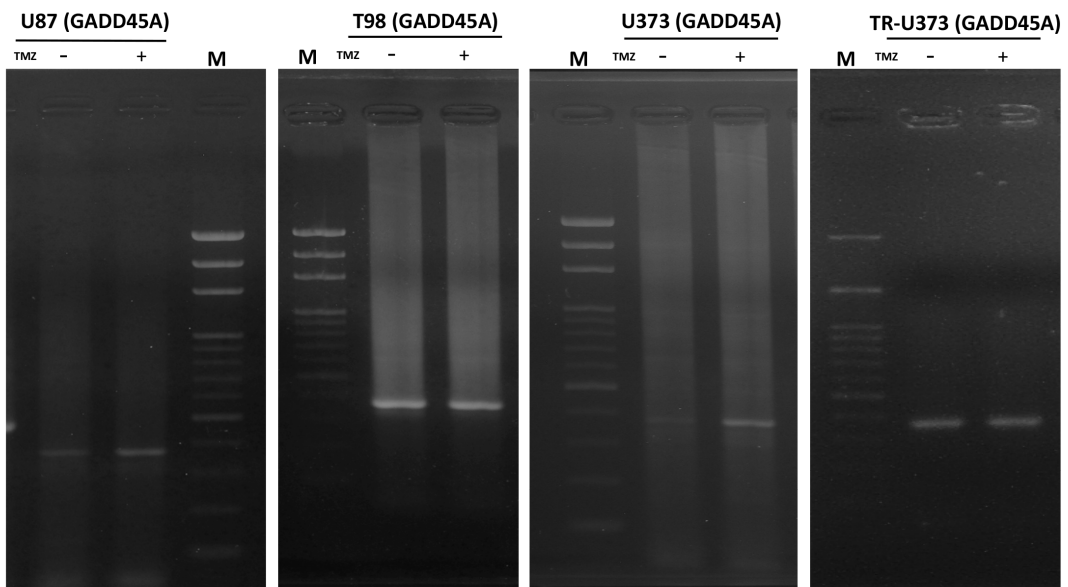
day 7.



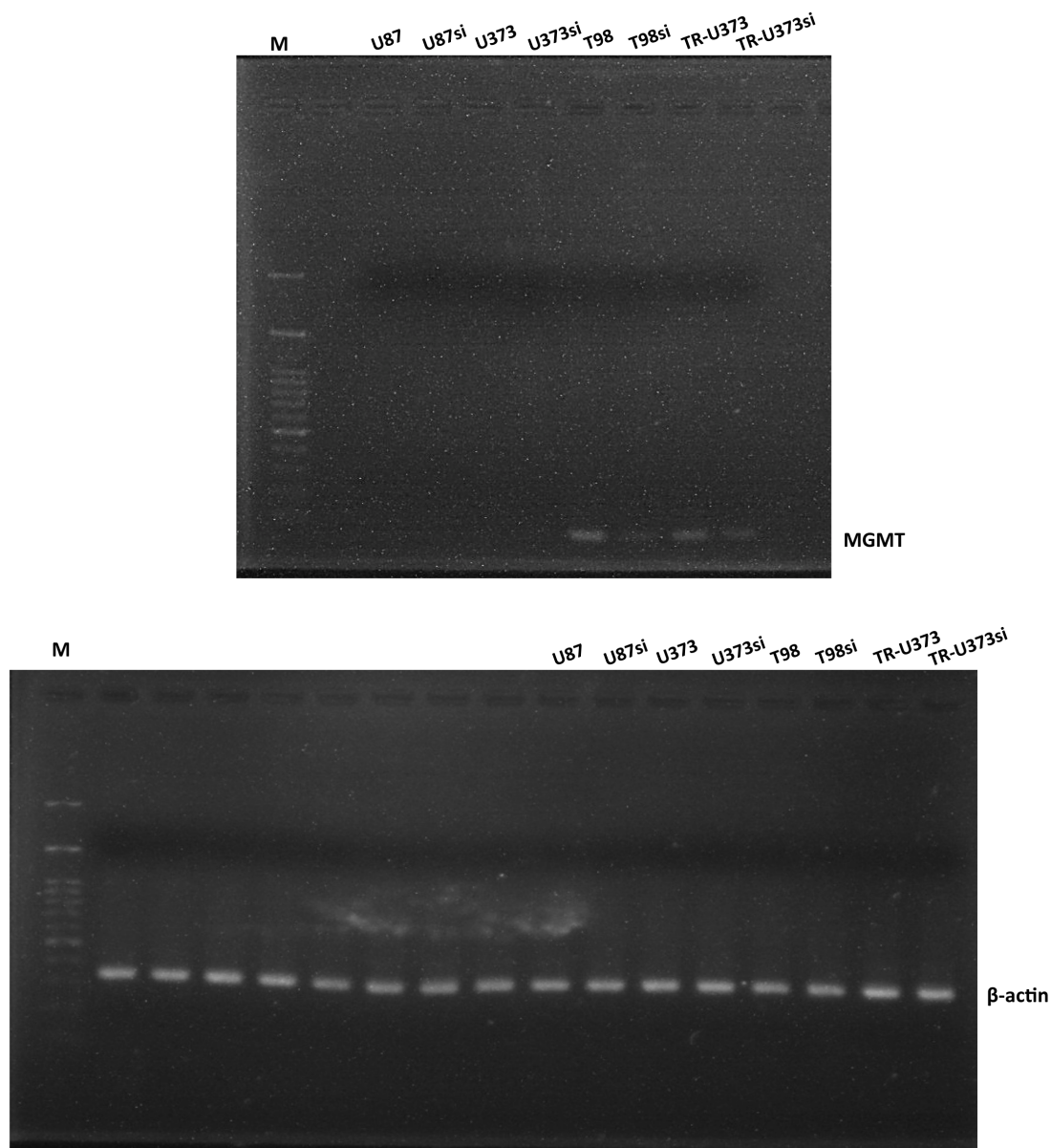
**Supplementary Figure 2. Cell cycle and apoptosis related genes expression profile of U87 and T98 cells treated with or without TMZ.** GEArray membranes containing human cell cycle or apoptosis gene-specific cDNA fragments were hybridized with labeled cDNA probes synthesized from total RNA derived from U87 and T98 cells treated with or without TMZ (25 $\mu$ g/ml). Human cell cycle microarray derived from U87 cells treated with DMSO only (**a**) and TMZ (**b**). Human apoptosis microarray derived from U87 cells treated with DMSO only (**c**) and TMZ (**d**). Human cell cycle microarray derived from T98 cells treated with DMSO only (**e**) and TMZ

**(f)**. Human apoptosis microarray derived from T98 cells treated with DMSO only **(g)**  
and TMZ **(h)**.

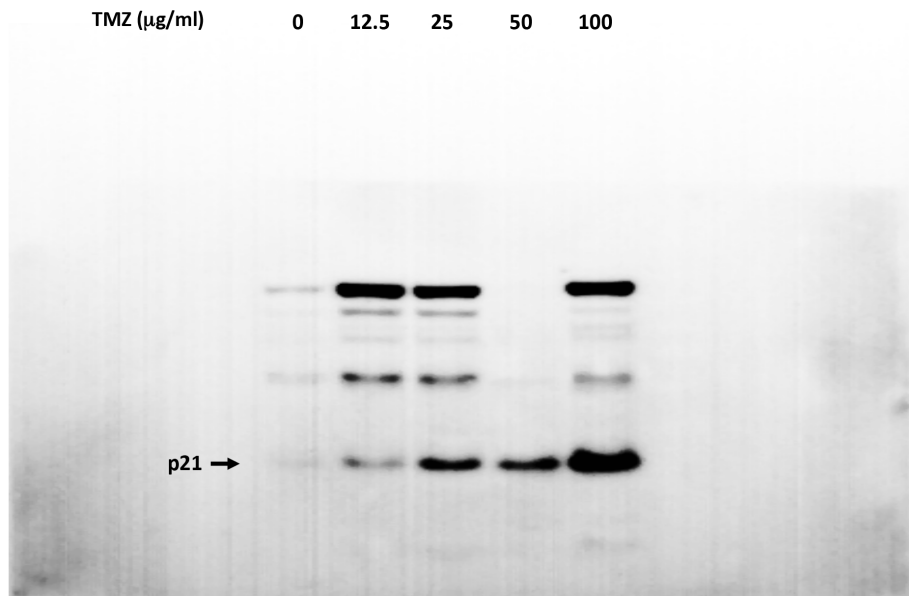
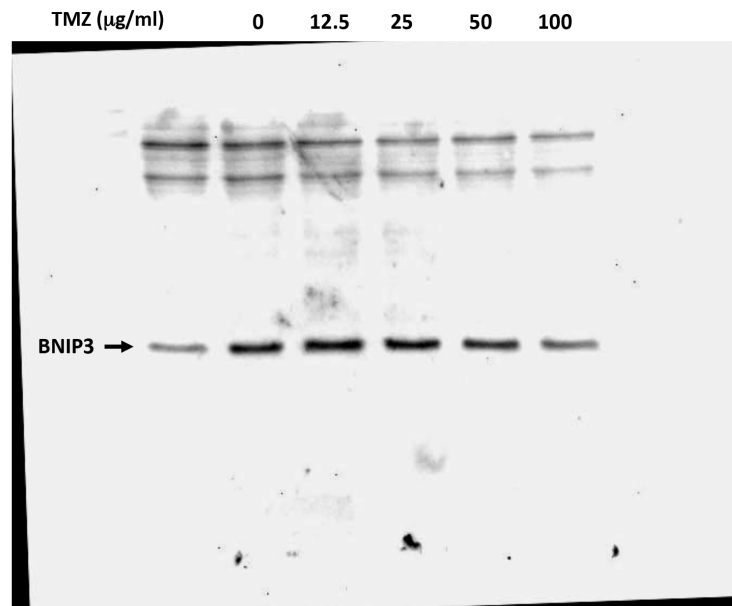




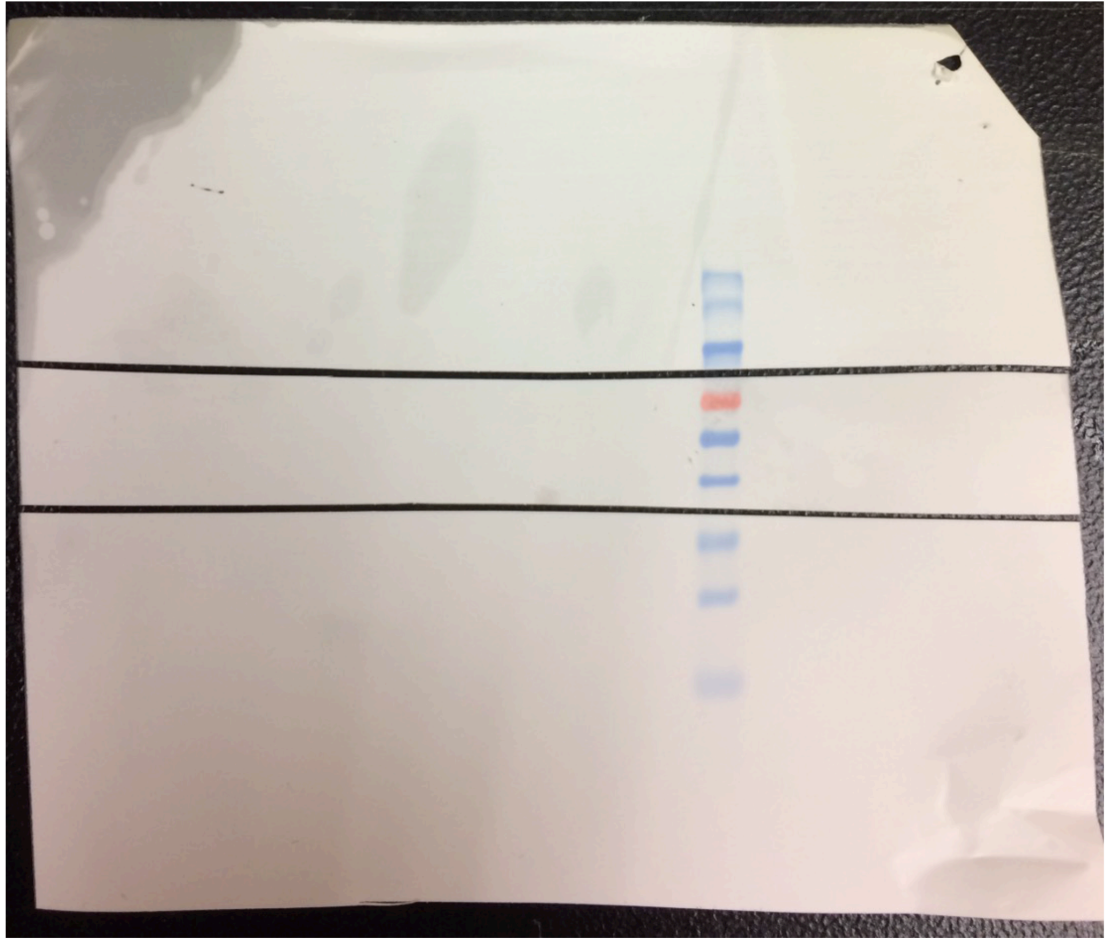
**Supplementary Figure 3.** The full-length gels of Figure 3c, d, e, f. The GADD45A expression affected by TMZ in U87, U373, T98 and TR-U373 cells.



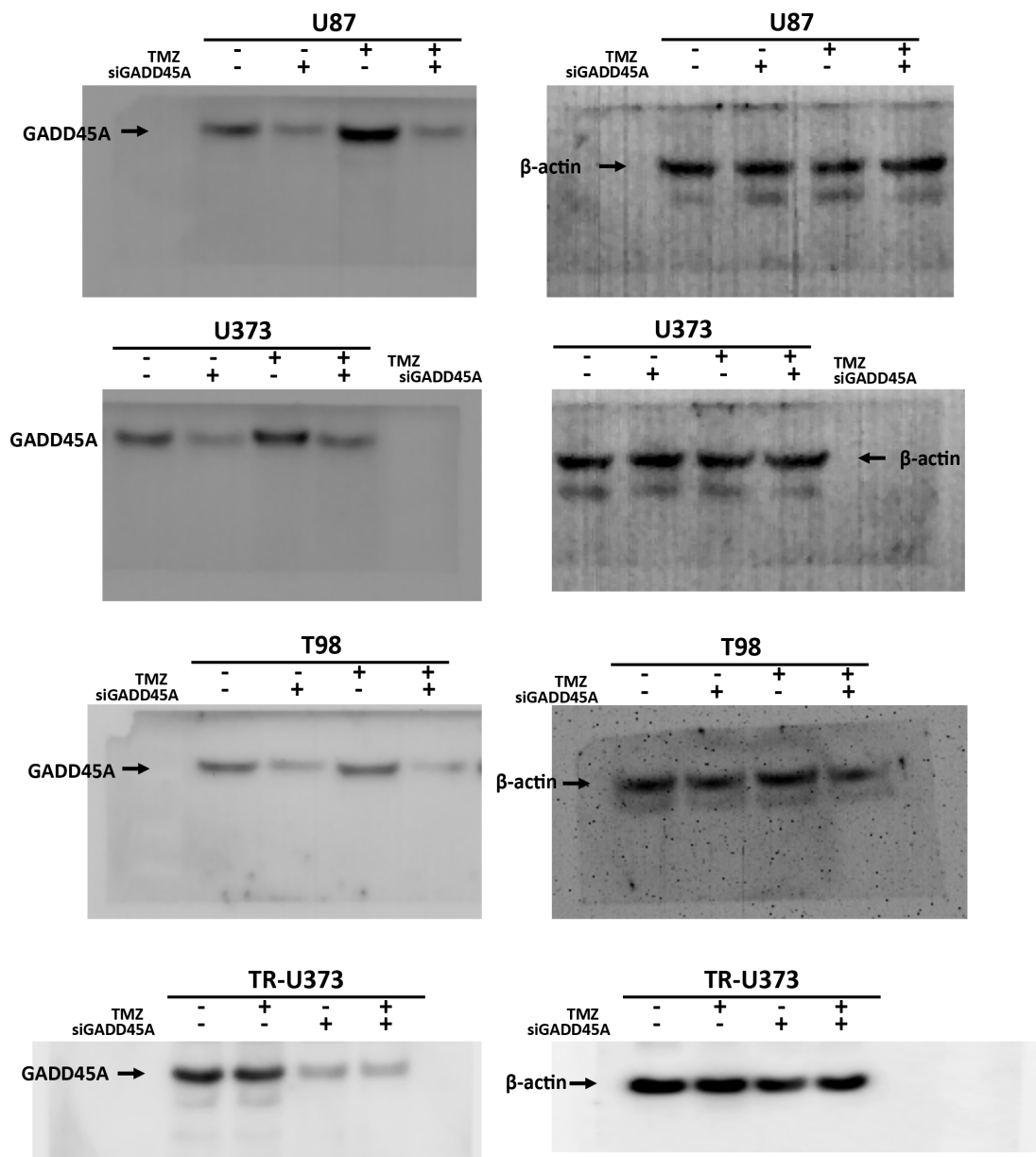
**Supplementary Figure 4.** The full-length gels of Figure 7c. The MGMT expression affected by GADD45A<sup>kd</sup> in U87, U373, T98 and TR-U373 cells.



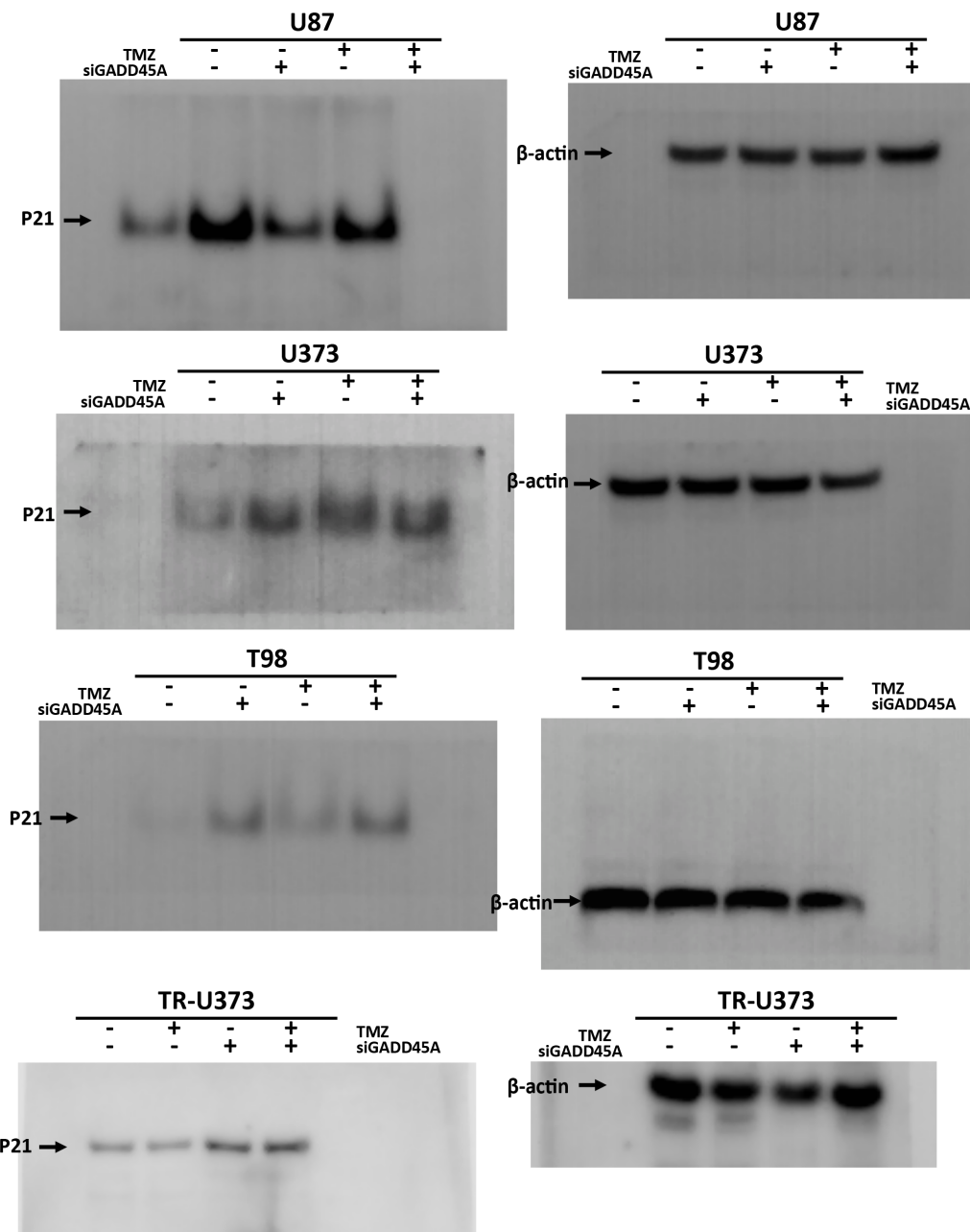
**Supplementary Figure 5.** The full-length blot of Figure 3b. The BNIP3 and P21 expression affected by different TMZ dose in U87, U373, T98 and TR-U373 cells.



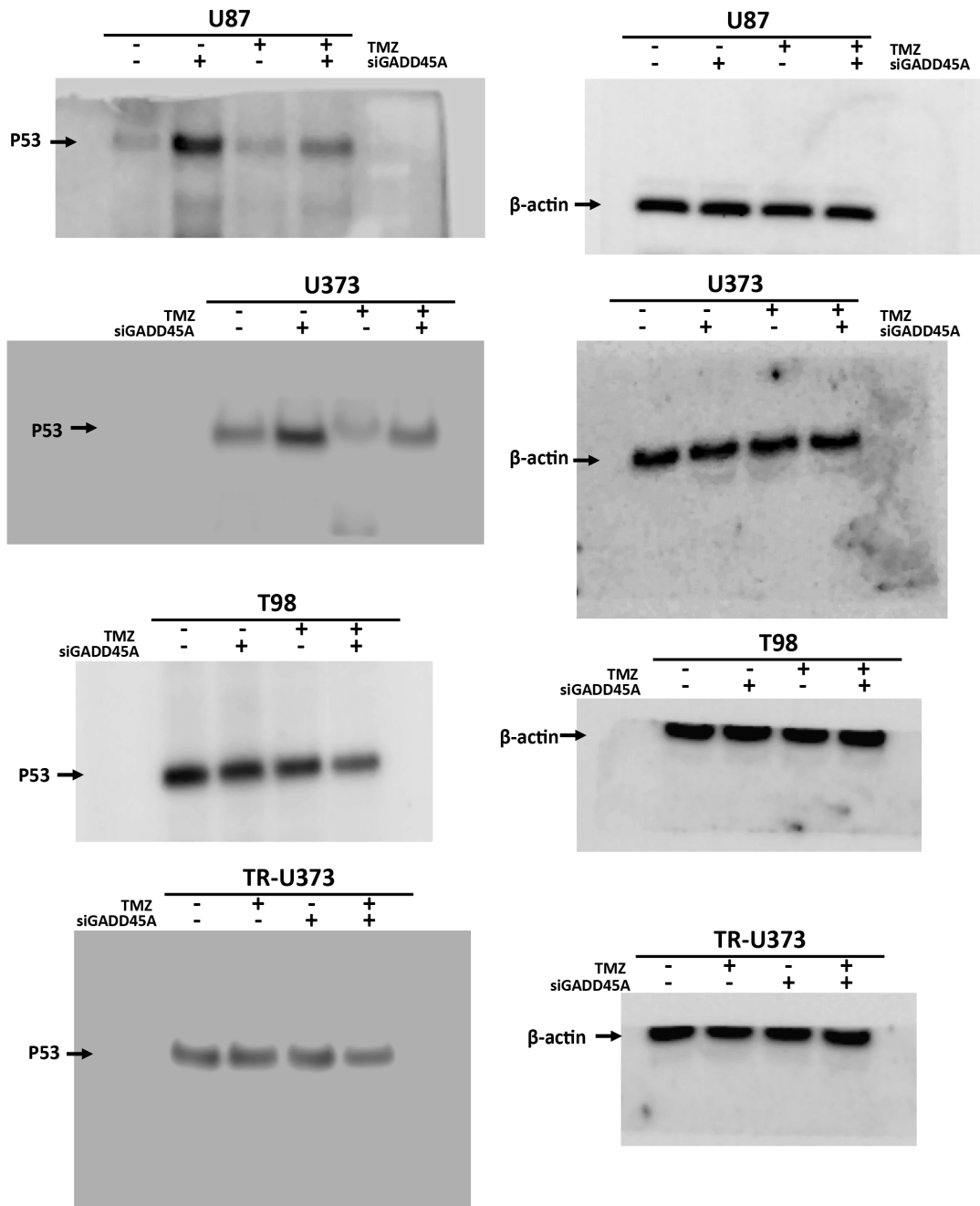
**Supplementary Figure 6.** The western blot membrane cropped by specific molecular weight.



**Supplementary Figure 7.** The original western blot of Figure 4b. The GADD45A expression affected by TMZ and GADD45A<sup>kd</sup> in U87, U373, T98 and TR-U373 cells.



**Supplementary Figure 8.** The original western blot of Figure 7b. The P21 expression affected by TMZ and GADD45A<sup>kd</sup> in U87, U373, T98 and TR-U373 cells.



**Supplementary Figure 9.** The original western blot of Figure 7d. The TP53 expression affected by TMZ and GADD45A<sup>kd</sup> in U87, U373, T98 and TR-U373 cells.