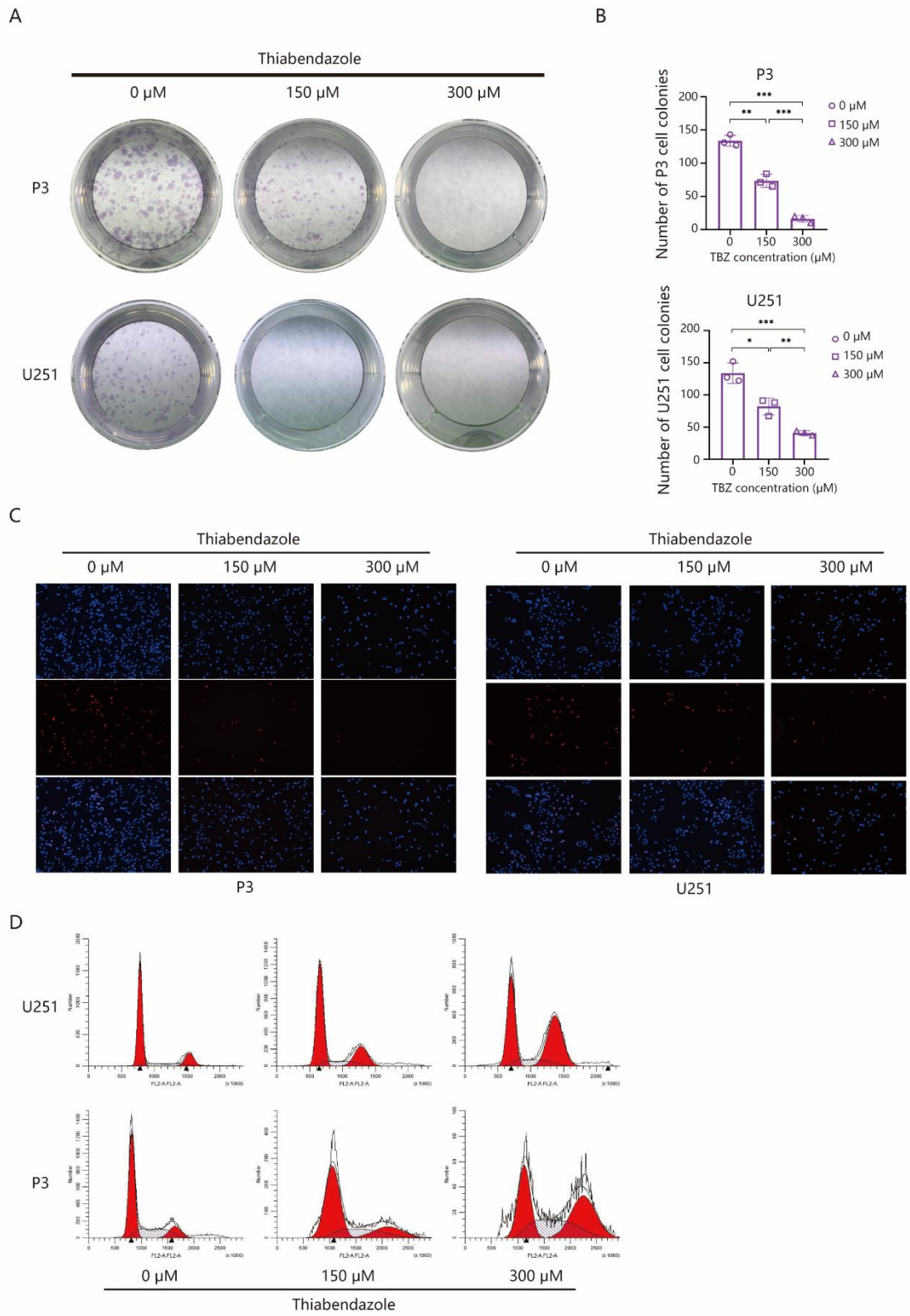


**Thiabendazole inhibits glioblastoma cells proliferation and invasion targeting  
MCM2**

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Xiaofei Liu, Wenjie Li, Qing Zhang, Anjing Chen, Bin Huang and Jian Wang

# Figures and Legends

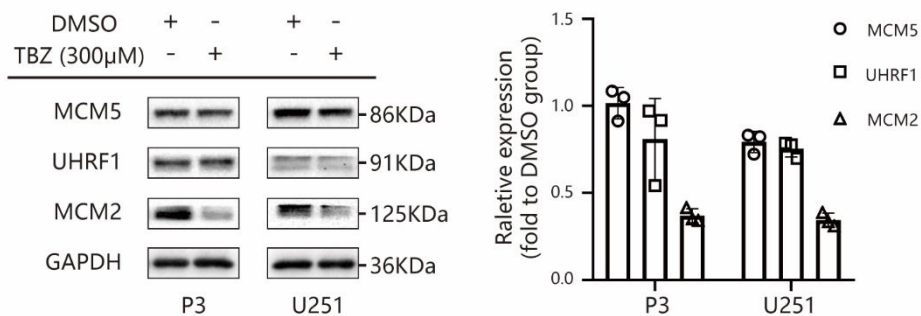
## Supplementary Figure 1



Supplementary Figure 1. Thiabendazole promotes G2/M arrest in GBM cells in vitro. (S1A)

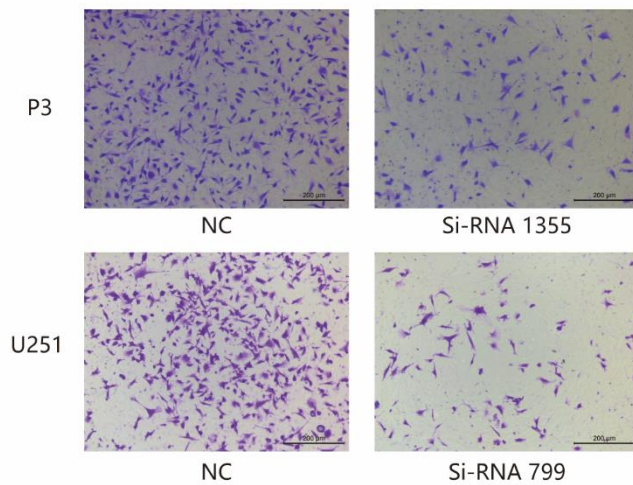
Representative images of colony formation assays for P3 and U251 under treatment with different concentrations of TBZ for 2 weeks. (S1B) Graphic representation of results from colony formation assays for P3 and U251 under treatment with different concentrations of TBZ. (S1C) Fluorescence images of EdU incorporation in P3 and U251 cells treated with TBZ (150  $\mu$ M and 300  $\mu$ M) or DMSO (0  $\mu$ M) for 48 h. Cells were stained with Apollo 567 (red) to detect EdU and DAPI (blue) to highlight nuclei, and images were merged (magnification, 100 $\times$ ). (S1D) Representative images of cell cycle distribution for P3 and U251 under TBZ treatment acquired with PI staining and flow cytometry.

### Supplementary Figure 2



**Supplementary Figure 2. Downregulation of MCM5, UHRF1, and MCM2 in TBZ treated GBM cells.** Western blot analysis performed to detect levels of MCM5, UHRF1, MCM2 and GAPDH in P3 and U251. Graphic representation of the relative expression of MCM5, UHRF1 and MCM2 in P3 and U251 under TBZ treatment relative to the control (DMSO).

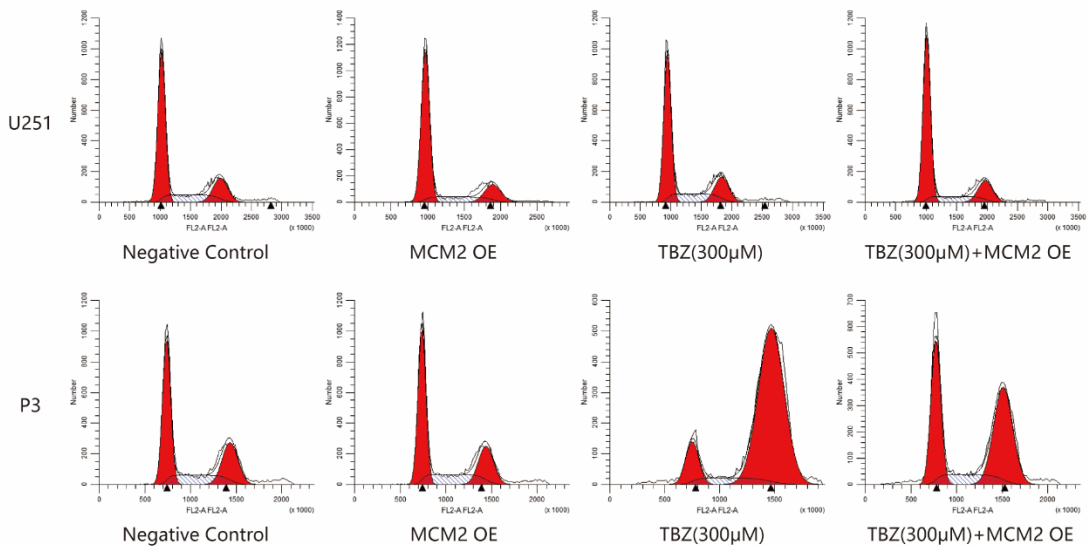
### Supplementary Figure 3



### Supplementary Figure 3. Knockdown of MCM2 inhibits glioma cell invasion.

Representative images of transwell invasion assays for P3 and U251 transfected with MCM2 or control si-RNA (scale bars: 200 μm). Cells were fixed and stained with crystal violet.

### Supplementary Figure 4

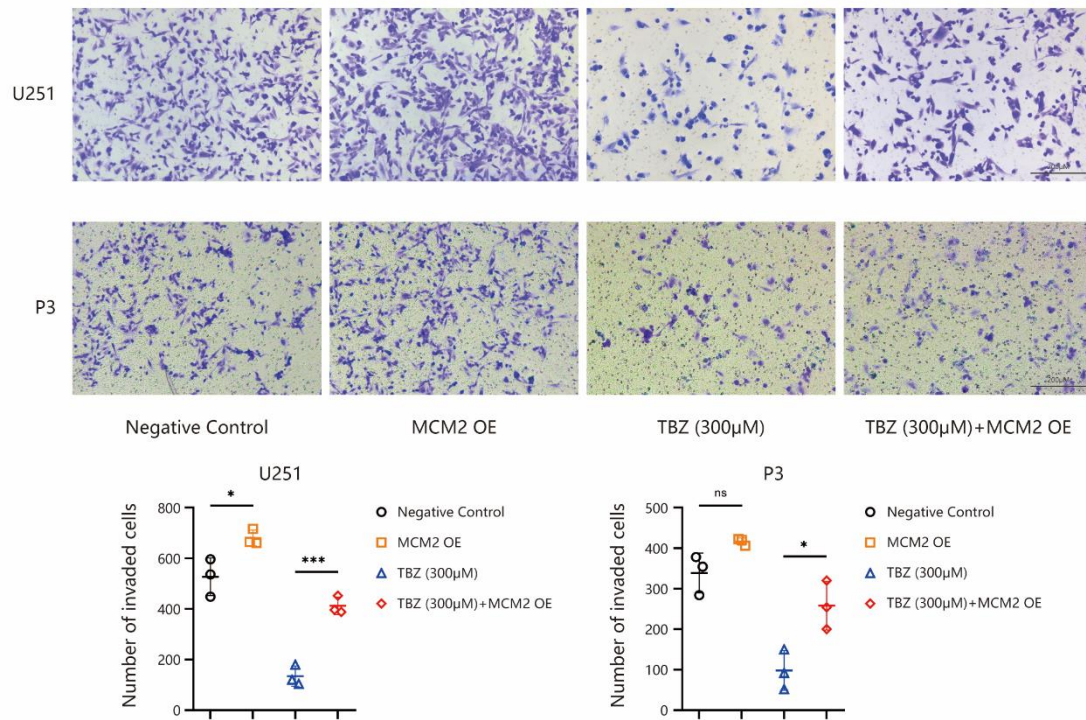


### Supplementary Figure 4. Overexpression of MCM2 rescues TBZ-treated P3 and U251 cells

from G2/M arrest. Cell cycle distribution of P3- and U251-MCM2-OE and parental cell lines

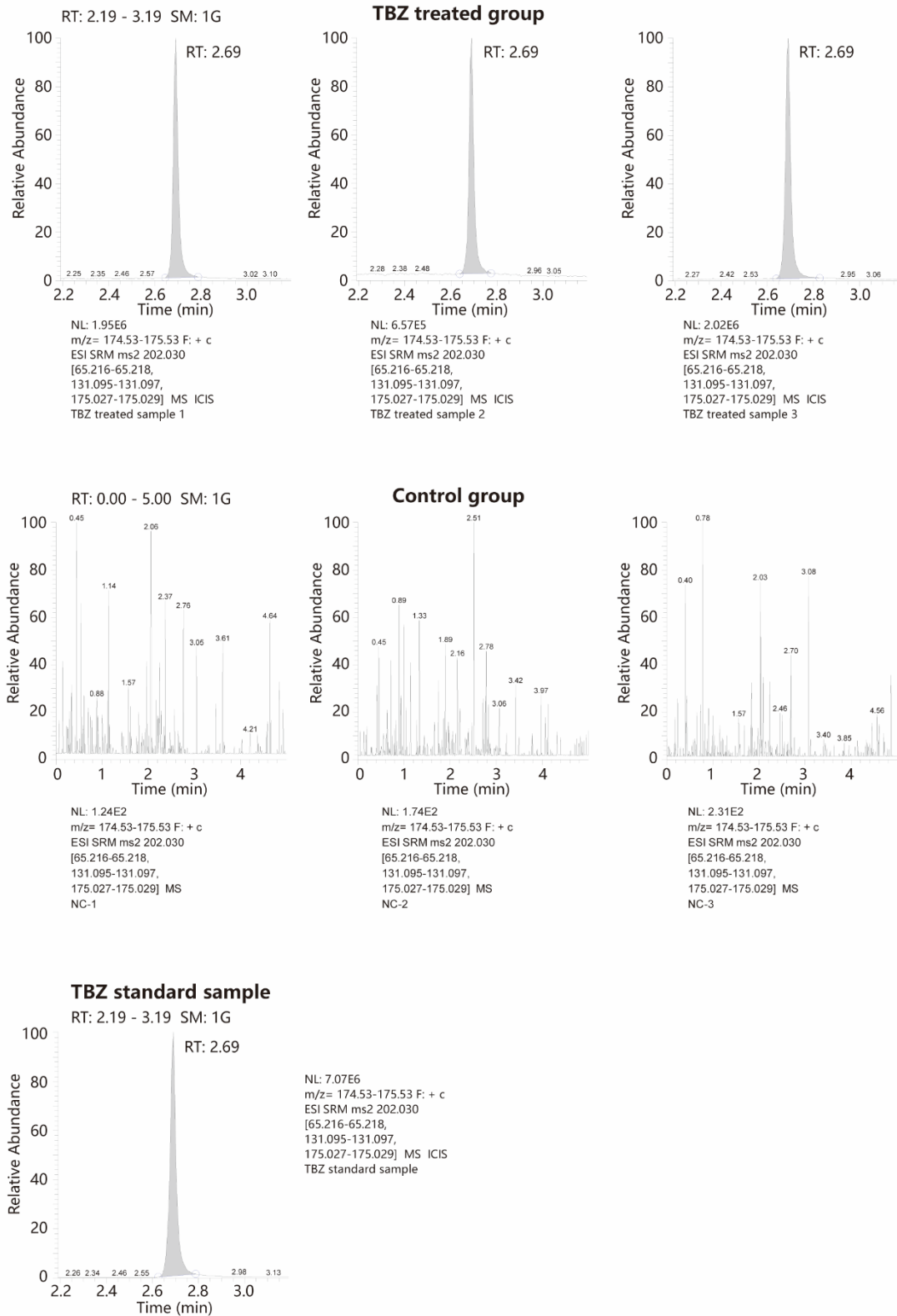
acquired with PI staining and flow cytometry.

### Supplementary Figure 5



**Supplementary Figure 5. Overexpression of MCM2 reverses TBZ-induced inhibition of glioma cell invasion.** Representative images of transwell invasion assays for P3- and U251-MCM2-OE and parental cell lines under the conditions indicated (scale bars: 200  $\mu$ m). Graphic representation of the transwell cell number for P3- and U251-MCM2-OE and parental cell lines under the conditions indicated. ns = none-significant, \*  $P < 0.05$ , \*\*\*  $P < 0.001$ .

**Supplementary Figure 6**



**Supplementary Figure 6. TBZ distribution in brain tissue of nude mice. LC-MS spectrum**

analysis of the brain tissue samples obtained from nude mice (upper panel: TBZ-treated group and

middle panel: control group. 3 mice per group) vs. standard TBZ sample (lower panel).