Supporting Information

Matrine Cooperates with All-Trans Retinoic Acid on Differentiation Induction of All-Trans Retinoic Acid-Resistant Acute Promyelocytic Leukemia Cells (NB4-LR1): Possible Mechanisms

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**Fig. 1S** The percentage of positive NBT cells among both NB4 and NB4-LR1 cells. NB4 and NB4-LR1 cells were exposed to PBS, ATRA (1 μmol/L), MAT (0.1 mmol/L), and ATRA combined with MAT, respectively, for 72 h. Data are shown as mean ± SEM (n = 3), **p < 0.01 (compared to the control group), +p < 0.05 (compared to the ATRA-treated group).

**Fig. 2S** Expression of Topo II β protein in NB4 and NB4-LR1 cells. NB4 and NB4-LR1 cells were treated with solvent (equivalent PBS and DMSO), ATRA (1 μmol/L, with equivalent PBS), MAT (0.1 mmol/L, with equivalent DMSO), and ATRA combined with MAT for 72 h. Illustrations A to D represent NB4 cells, and E to H represent NB4-LR1 cells. The cells were harvested and smeared on lysine-coated glass slides. After acetone fixation, the envision two-step method was used to detect the expression levels of Topo II β protein. The slides were observed under a light microscope and photographed under 10 × 20 resolution.

**Fig. 3S** Structural formula of MAT.
Fig. 1S
Fig. 2S

A
NB4 (Control)

B
NB4 (ATRA)

C
NB4 (MAT)

D
NB4 (ATRA+MAT)

E
NB4-LR1 (Control)

F
NB4-LR1 (ATRA)

G
NB4-LR1 (MAT)

H
NB4-LR1 (ATRA+MAT)

Fig. 3S