

# Supporting Information

## Physiological Effects of Azido-Sugar and Optimization of Metabolic Labeling for Cell Tracking

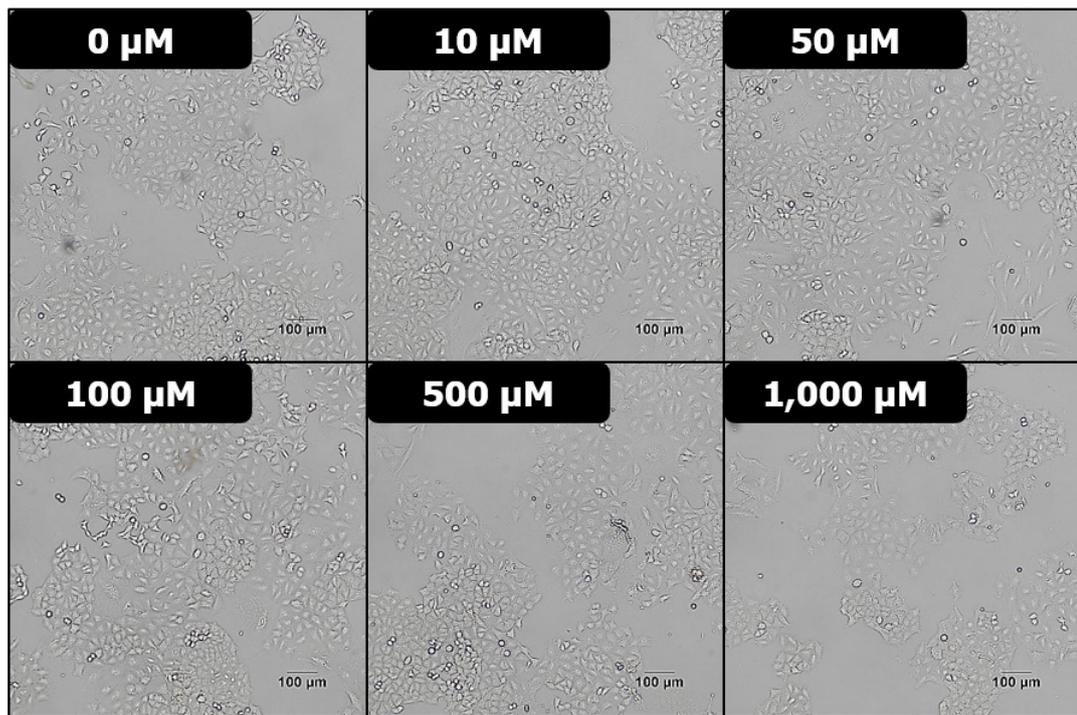
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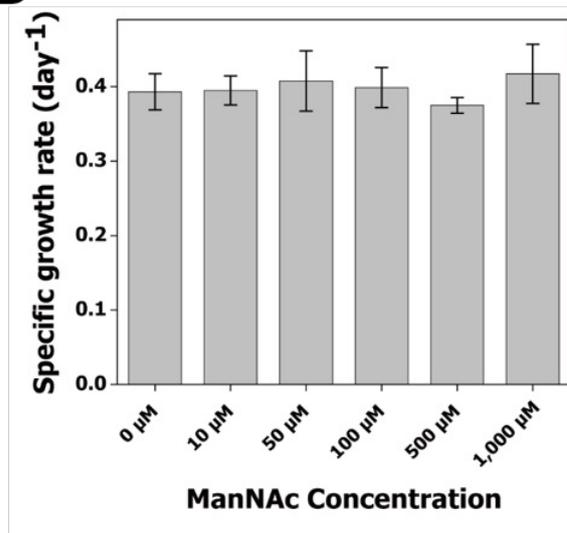
**Figure S1. Analysis of proliferation ability, and viability on ManNAc treated A549 cells.**

The morphological property was analyzed using microscopic observation (A). The specific growth rate (B) and viability (C) were analyzed by CCK-8 and manual microscopic counting.

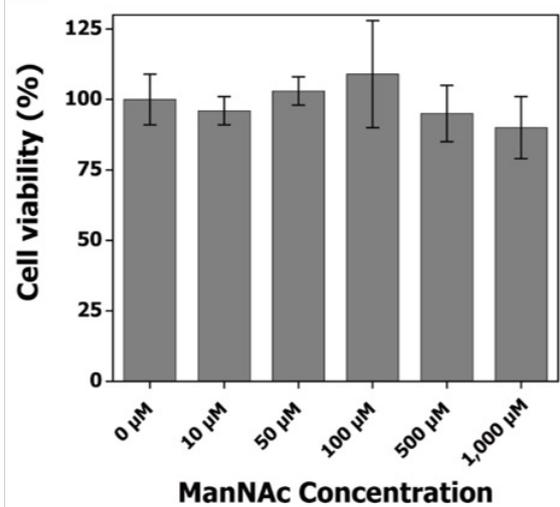
**A**



**B**

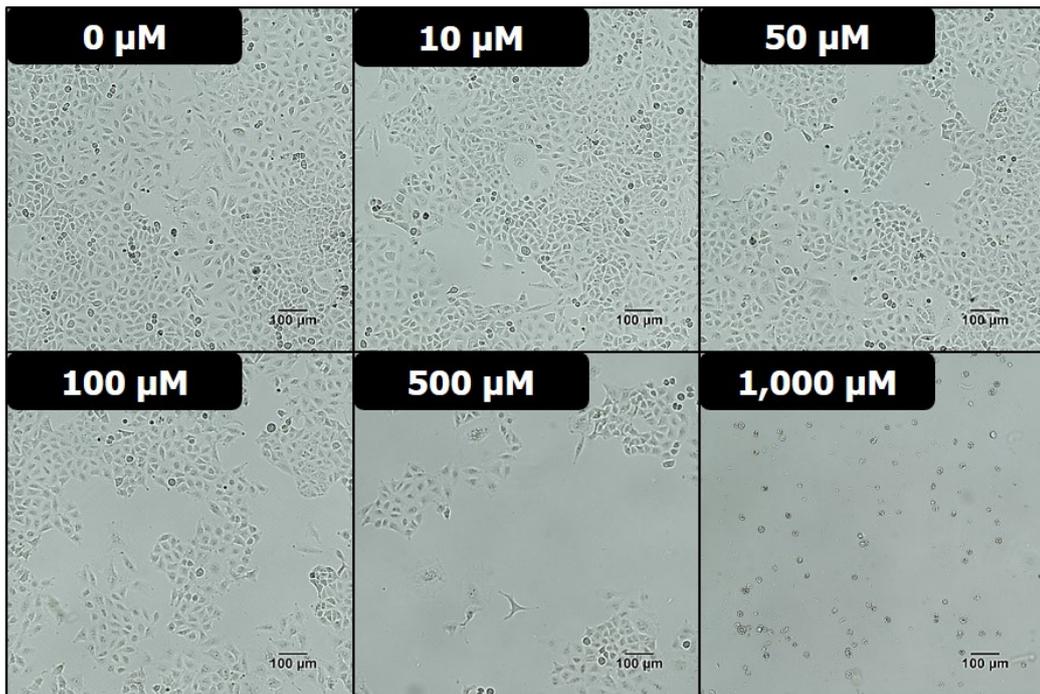


**C**

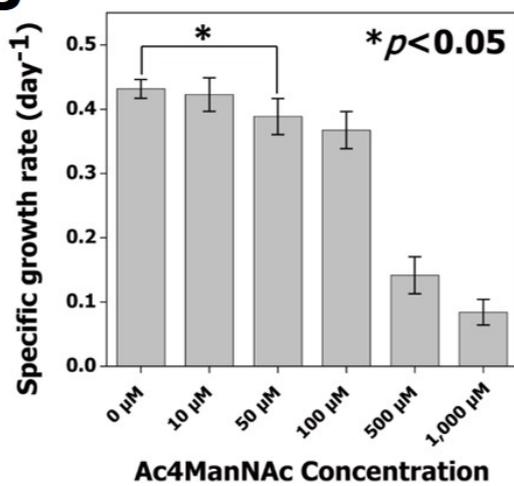


**Figure S2. Analysis of proliferation ability, and viability on Ac4ManNAc treated A549 cells.** The morphological property was analyzed using microscopic observation (A). The specific growth rate (B) and viability (C) were analyzed by CCK-8 and manual microscopic counting.

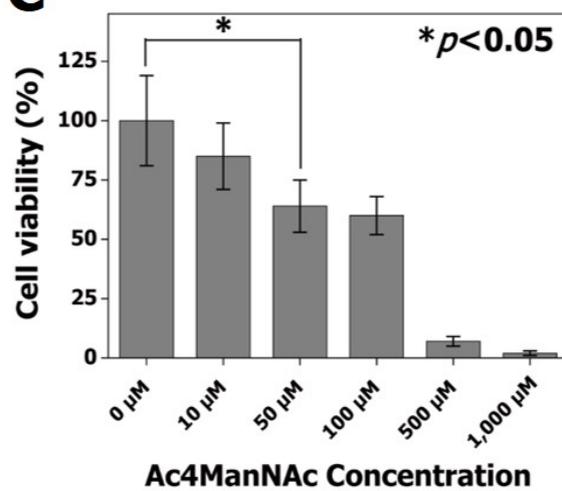
**A**



**B**

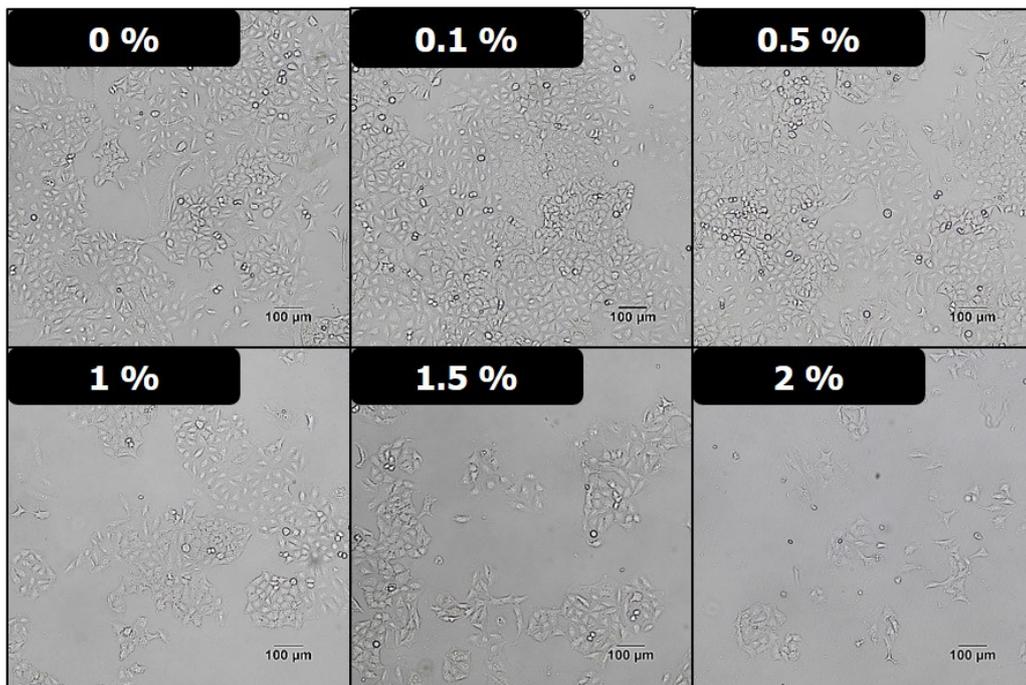


**C**

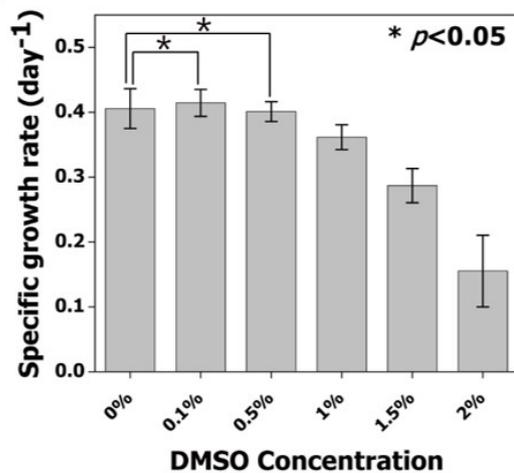


**Figure S3. Analysis of proliferation ability, and viability on organic solvent treated A549 cells.** The morphological property was analyzed using microscopic observation (A). The specific growth rate (B) and viability (C) were analyzed by CCK-8 and manual microscopic counting.

**A**



**B**



**C**

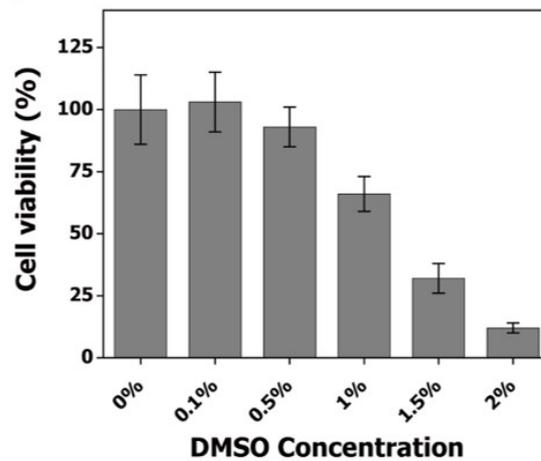


Figure S4. Permeability analysis on Ac<sub>4</sub>ManNAz treated A549 cells using liposome (A) and transfection efficiency (B).

