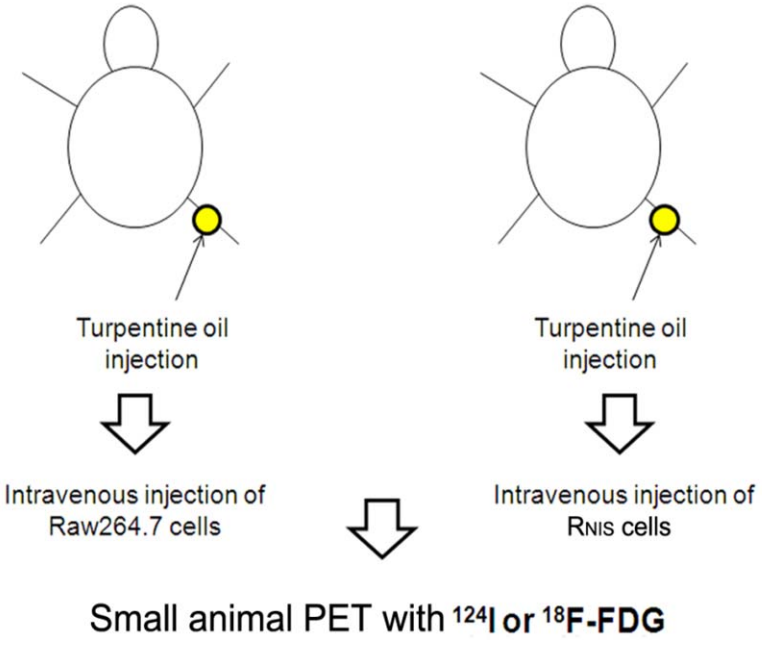
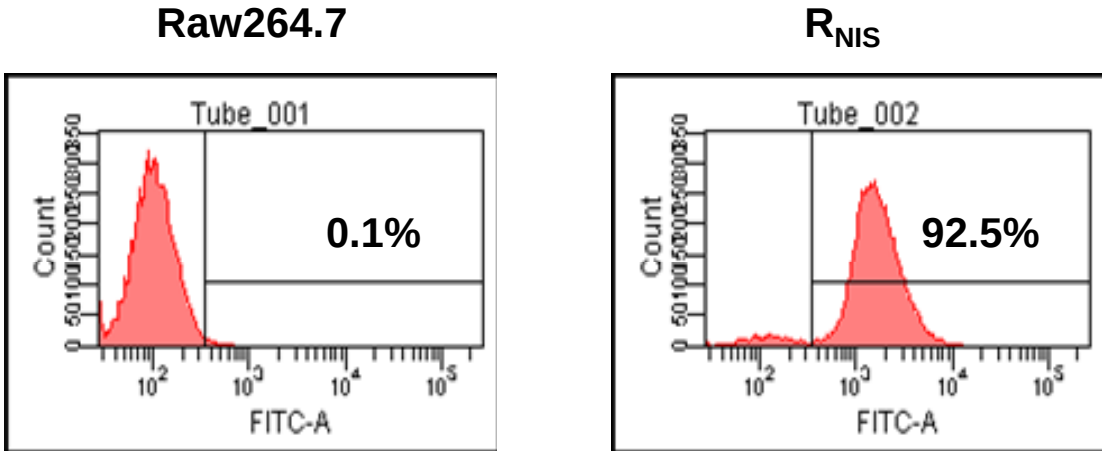
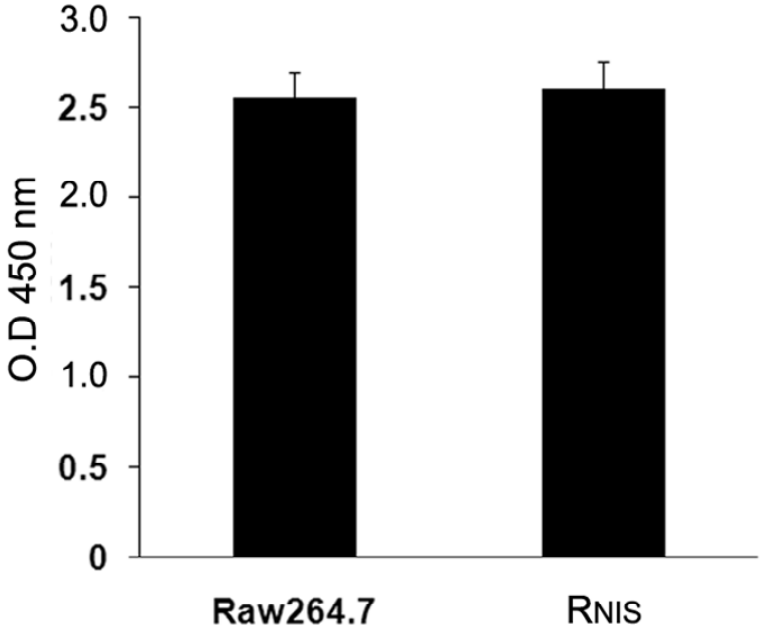


Supplemental Figure 1. The scheme of animal experimental schedule. Turpentine oil was intramuscularly injected into right thigh of nude mouse (5 mice per group). LPS (1 μg/ml) was injected to promote inflammatory process. Inflammation was confirmed 7 days later, and parental Raw264.7 cells or R_{NIS} cells (3×10^6 per mouse) were intravenously injected to inflammation-induced mice. MciroPET imaging with I-124 and F-18 FDG was acquired at designated time point.

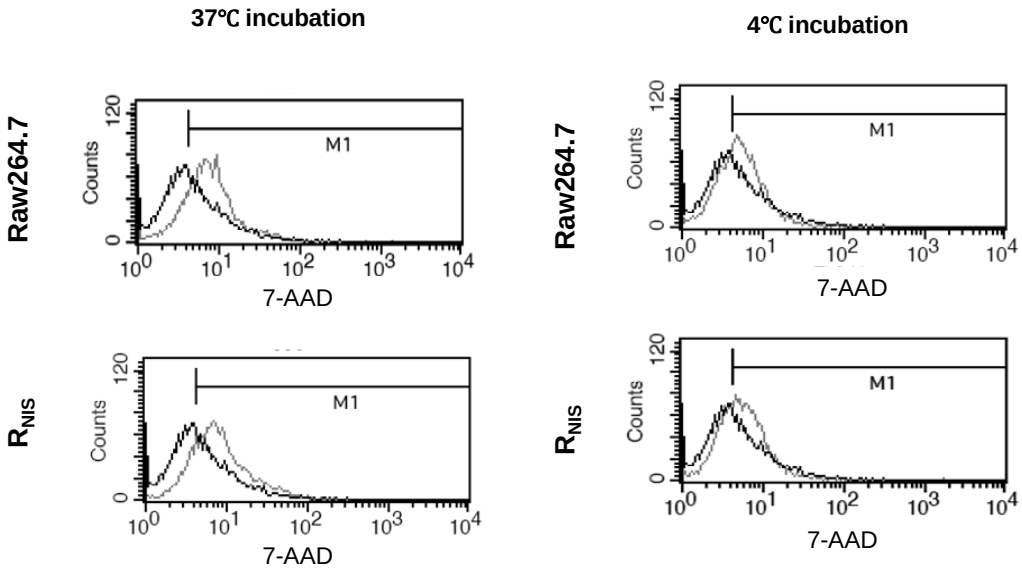


Supplemental Figure 2. Flow cytometry analysis to determine the expression of GFP protein. FACS analysis to examine the GFP gene expression in macrophage Raw264.7 cell line stably expressing hNIS and GFP gene (R_{NIS}).

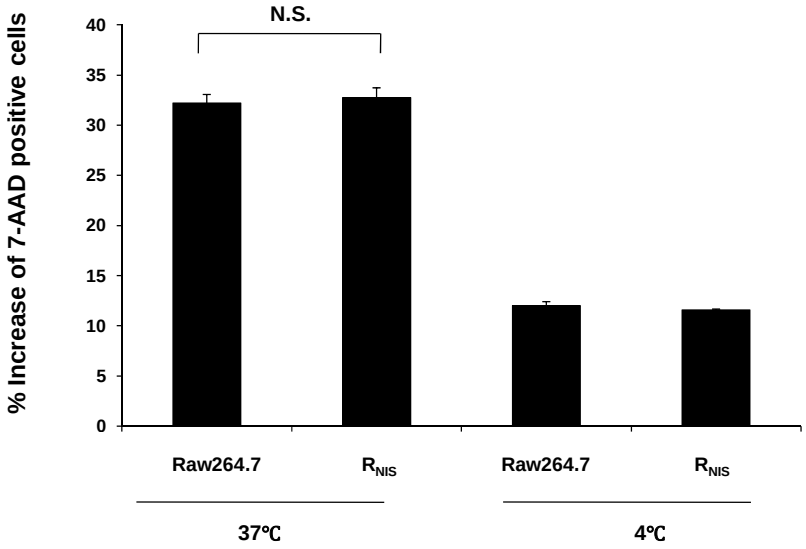


Supplemental Figure 3. Cell proliferation assay. Cells were plated at 2×10^4 per well in 96-well plate and later, cell viability was assessed at 2 days with a CCK-8 assay.

4A


37℃ incubation
4℃ incubation
Raw264.7
Raw264.7
R_{NIS}
R_{NIS}
Counts
120
0
M1
10^0
10^1
10^2
10^3
10^4
7-AAD

4B



Supplemental Figure 4. Measurement of phagocytic activity. (A) Flow cytometric analysis for 7-AAD positive cells. (B) The Y axis indicates relative increases in percentages of 7-AAD positive cells. Black and gray line indicate non-treated control cell and 7-AAD stained cells, respectively. Ten thousand cells were analyzed and % increases depict the relative increases in percentage of 7-AAD positive macrophage cells treated with 7-AAD stained E. coli compared to those treated with no 7-AAD stained E. coli. Bars represent mean ± SD. N.S., not significant.