

Supplementary Figure 1. Enforced expression of LIN28B in MMNK-1 cells. (a) Real-time PCR revealing the relative expression level of LIN28B gene in stably overexpressed LIN28B in MMNK-1 cells normalized with empty vector- MMNK-1 control cells. (b) Immunofluorescence staining showing expression and localization of LIN28B in LIN28B-overexpressing MMNK-1 cells and MMNK-1 control cells. Red color showing the LIN28B staining and blue color-DAPI fluorescence signal indicates nuclear staining. A bar graph shows mean \pm SD, n=3. Statistic significant,****P*≤0.001 as compared with control.



Supplementary Figure 2. Enforced expression of LIN28B in HuCCT1 cells. (a-c) Real-time PCR revealing the relative expression levels of *LIN28B*, *IL-6*, *IL-8*, and *ALDH1A2* in LIN28B-overexpressing HuCCT1 cells normalized to empty vector control-HuCCT1 cells. (d) ALDH activity assay and flow cytometry demonstrating the percentage of ALDH positive cells in LIN28B-overexpressing HuCCT1 cells and control cells. (e) MTT assay revealing the viable cells of LIN28B-overexpressing HuCCT1 cells and control cells after treatment with various concentrations of chemotherapeutic agents for 72 h. Bar graphs show mean±SD, n=3. Statistic significant, **P*≤0.05, ***P*≤0.01, ****P*≤0.001, and ns indicates no significant.



Supplementary Figure 3. Cisplatin and Etoposide resistant in LIN28B-overexpressing cells. Trypan blue exclusion assay showing the cell viability of LIN28B-overexpressing cells and control cells after treatment with Cisplatin and Etoposide for 72 h. Using 5 μ M of Cisplatin for LIN28B-overexpressing MMNK-1 cells and 10 μ M for HuCCT1 cells, and 2 μ M of Etoposide for both LIN28B-overexpressing cells. (a) The representative pictures of non-treated and treated cells after 72 h of treatment. (b) Bar graph showing the percentage of cell viability of LIN28B-overexpressing MMNK-1 and HuCCT1 treated Cisplatin and Etoposide for 72 h. Pictures were captured using bright field inverted microscope with magnification 100X for MMNK-1 cells and 40X for HuCCT1 cells. Bar graphs indicate as mean±SD of triplicate wells. Statistic significant, **P*≤0.05, ***P*≤0.01, ****P*≤0.001



Supplementary Figure 4. Drug efflux pump activity in stable LIN28-overexpressing MMNK-1 cells. The flow cytometry analysis showing the intracellular accumulation of Rhodamine 123 in LIN28B-overexpressing MMNK-1 cells and MMNK-1 control cells., Red histogram is non-Rhodamine 123, light blue histogram is Rhodamine 123-incubating cells for 30 minutes, and orange histogram is testing sample, where cells were withdraw after incubated with Rhodamine 123 for 30 minutes.