Figure S1. Protein expressions of CTSB in PANC-1 derivatives. PANC-1-Lm was induced using the same method as for YPK2-Lm. Western blot analysis was used to evaluate CTSB expression in the PANC-1 and PANC-1-Lm cells, which revealed higher expression in PANC-1-Lm cells. Anti-CTSB antibody detects both mature CTSB (~31 kDa) and pro-CTSB (43/46 kDa). The expression level of VCP was used as a loading control. Data were analyzed using Welch's t-test. \*P<0.05. CTSB, cathepsin B; VCP, valosin-containing protein.



Figure S2. Expression of CTSB and CD44v9 on the surface of PANC-1-Lm cells and PANC-1 parental cells. Cells were stained with APC-conjugated anti-CTSB antibody and anti-CD44v9 antibody followed by FITC-conjugated anti-rat IgG2a secondary antibody then separated with a flow cytometer. The results indicate that CTSB was more highly expressed on the surface of PANC-1-Lm cells compared with PANC-1 cells. Red and blue histograms were obtained by isotype-control and target antibodies, respectively. CTSB, cathepsin B; CD44v9, variant isoforms of CD44.



Figure S3. Concentrations of CTSB based on ELISA using media from cultures of PANC-1 derivative cells. Results indicates that CTSB was present at a high concentration in the culture media for PANC-1-Lm cells compared with PANC-1 cells. Each medium incubated in the absence of cells was used as a blank. Data were analyzed using Welch's t-test. \*P<0.05.

