

Supplementary Figure Legends

FIGURE S1 X-Gal staining of MDA-MB-231 cells cultured with TAT-ODD- β -Gal (1 unit of β -Gal activity/ml) for 24 h under 20% or 1% O₂.

FIGURE S2 Effects of CA-HIF-1 α on bone metastases of MDA-MB-231 cells.

(A) Representative radiographs of bone metastases of MDA/EV (EV) and MDA/CA-HIF (clone 2; CA-HIF) in nude mice at day 28.

(B) Radiographical analysis of osteolytic lesion area of MDA/CA-HIF. Data are shown as osteolytic lesion area (mm²)/mouse (n = 9/group). * Significantly different from MDA/EV (p<0.05)

FIGURE S3 Establishment of MDA-MB-231 cells overexpressing DN-HIF-1 α (DN). Expression of DN-HIF-1 α was determined by western blot using anti-FLAG antibody (EV: MDA/EV).

FIGURE S4 Representative histological view of bone metastasis of MDA-MB-231 cells in nude mice stained with ALPase, TRAP, and immunohistochemistry for pimonidazole. ALPase-positive spindle-shaped osteoblast precursor cells (thin arrows) and TRAP-positive mononuclear osteoclast precursor cells (thick arrows) are adjacent to pimonidazole-positive hypoxic MDA-MB-231 cells (brown in color). (Original magnification x400)