Title Page

Title:

A novel cystathionine γ-lyase inhibitor, I194496, inhibits the growth and metastasis of human TNBC via downregulating multiple signaling pathways

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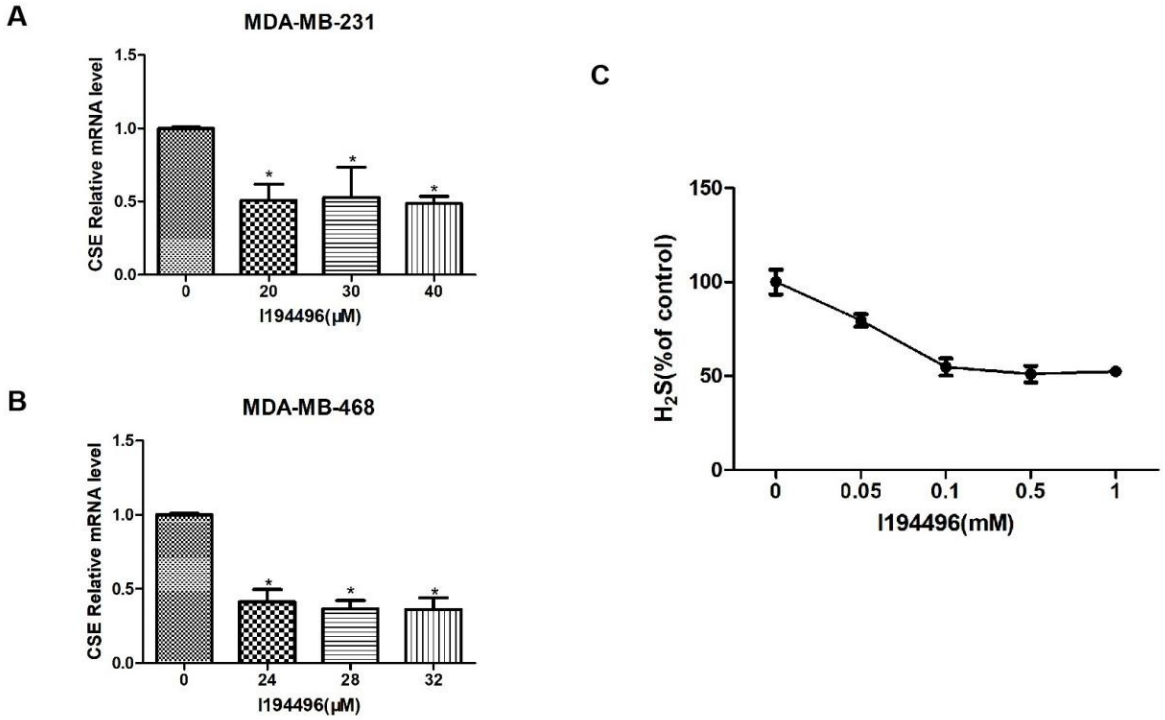
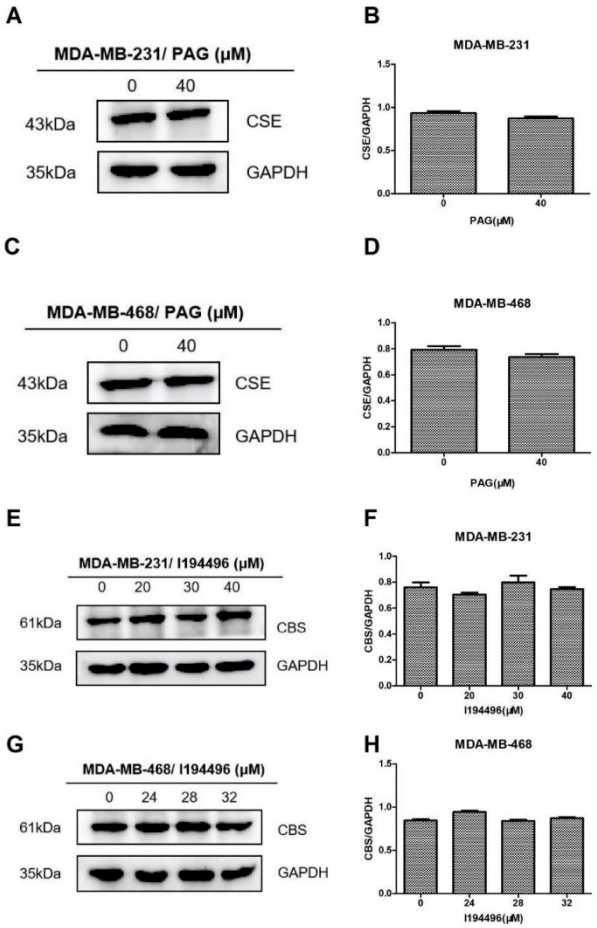
ORCID: 0000-0003-4038-2050Supplementary figure 1

Supplementary figure 1



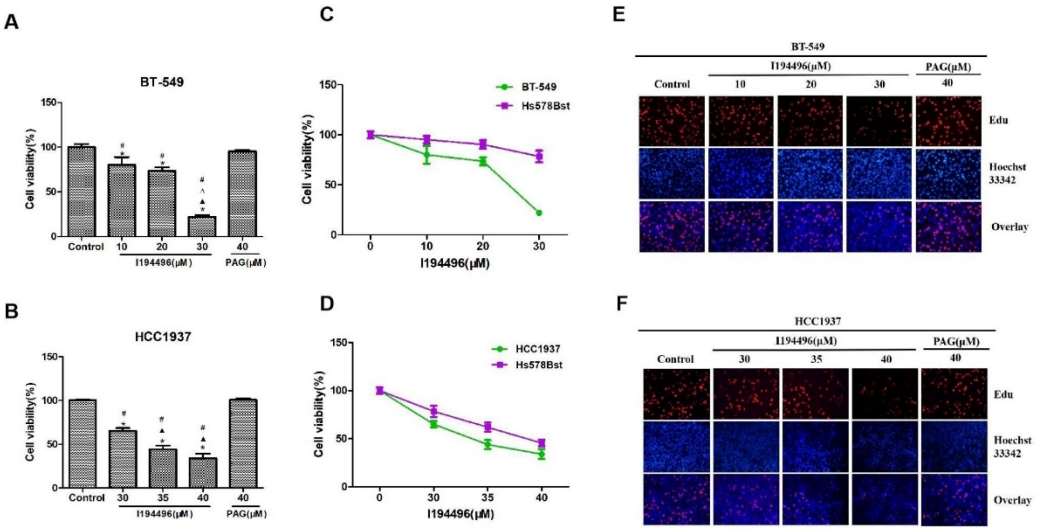
Supplementary figure 1. (A-B) The effect of I194496 on mRNA expression levels of CSE gene in MDA-MB-231 cells and MDA-MB-468 cells.The results showed that I194496 can effect the mRNA of CSE gene but not in a concentration - dependent manner. * $P<0.05$ vs 0 μM I194496 group.(C) The effect of I194496 on the recombinant CSE protein.The results showed that I194496 possessed significant inhibitory activity against CSE protein with IC50 of 0.79mM.

Supplementary figure 2



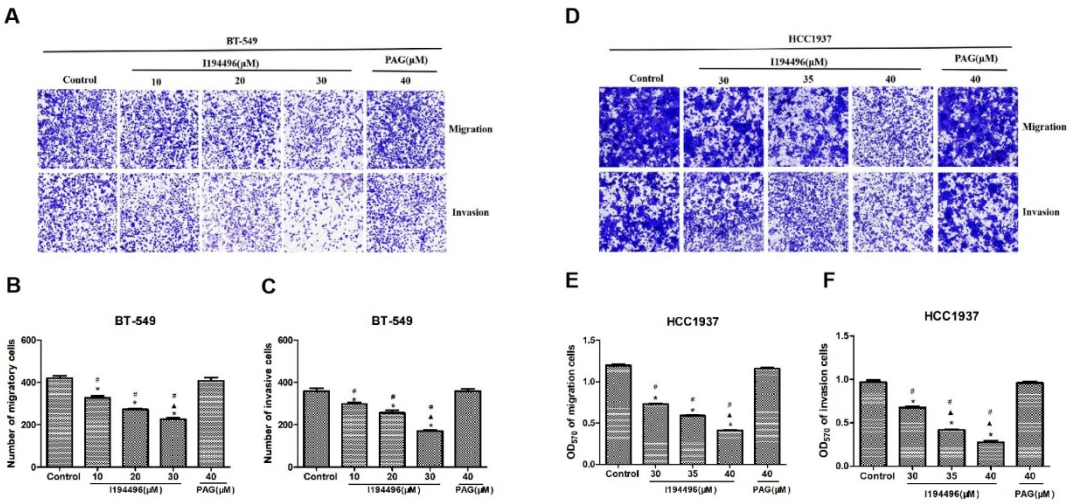
Supplementary figure 2. (A-B) The effect of PAG on CSE expression in MDA-MB-231 cells. (C-D) The effect of PAG on CSE expression in MDA-MB-468 cells. (E-F) The effect of I194496 on CBS expression in MDA-MB-231 cells. (G-H) The effect of I194496 on CBS expression in MDA-MB-468 cells. The results showed that 40 μM PAG did not affect the expression of CSE protein. Meanwhile, the novel CSE inhibitor I194496 did not inhibit the expression of CBS, which suggested that I194496 was specific for CSE.

Supplementary figure 3



Supplementary figure 3. (A-B) I194496 inhibits the growth and proliferation of TNBC cells. (A) MTS assay was used to detect the effect of I194496 on the viability of BT-549 cells. *P<0.05 vs Control group. ▲P<0.05 vs 10 μM I194496 group. △P<0.05 vs 20 μM I194496 group. #P<0.05 vs PAG group. (B) MTS assay was used to detect the effect of I194496 on the viability of HCC1937 cells. *P<0.05 vs Control group. ▲P<0.05 vs 30 μM I194496 group. #P<0.05 vs PAG group. (C-D) Comparison of the inhibitory effect of I194496 in normal breast epithelial cells and breast cancer cells. (E-F) EdU assay was performed to detect the proliferation of BT-549 and HCC1937 cells. The results showed that I194496 decreased the EdU+ cell number in a dose-dependent manner. EdU, 5-ethynyl-2'-deoxyuridine. Image magnification, x200.

Supplementary figure 4



Supplementary figure 4. (A-B) I194496 inhibits the migration and invasion of TNBC cells. (A-C) The effect of I194496 on the migration and invasion of BT-549 cells. *P<0.05 vs Control group. ▲P<0.05 vs 10 μM I194496 group. # P<0.05 vs PAG group. (D-F) The effect of I194496 on the migration and invasion of HCC1937 cells. *P<0.05 vs Control group. ▲P<0.05 vs 30 μM I194496 group. # P<0.05 vs PAG group. Image magnification, x200.

Multiple exposure images

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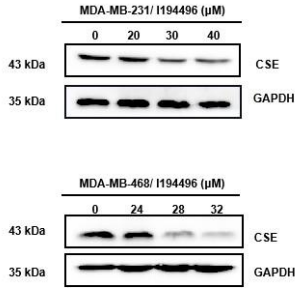

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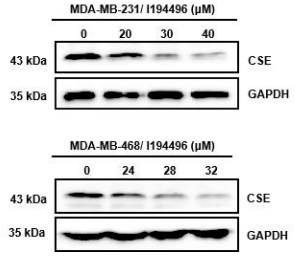

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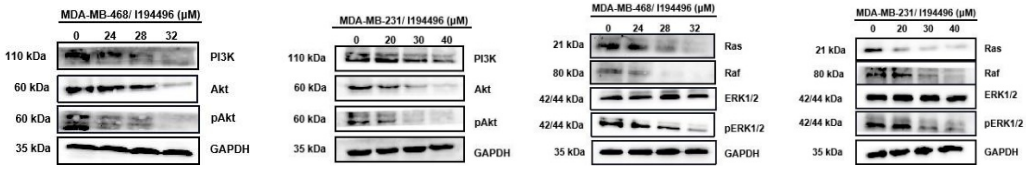

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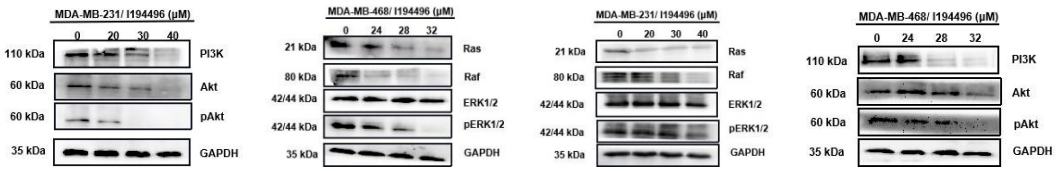

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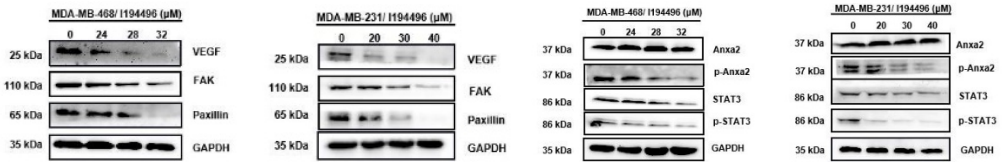

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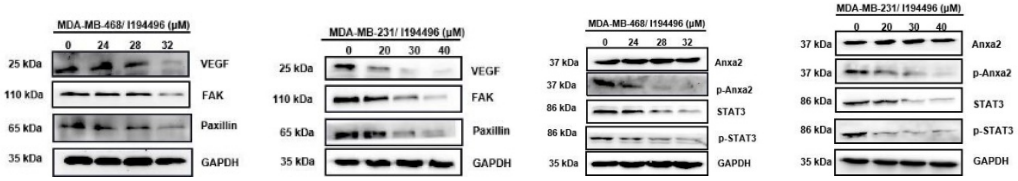

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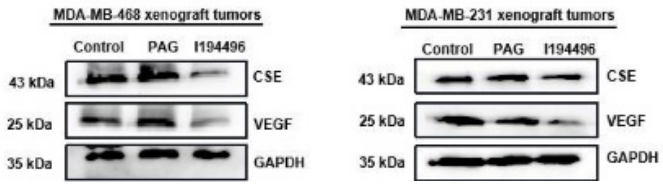

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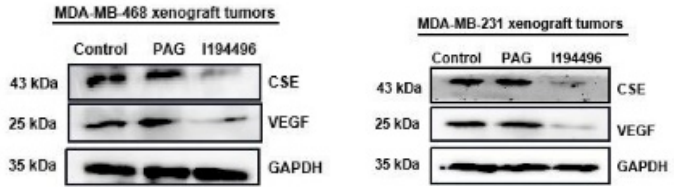

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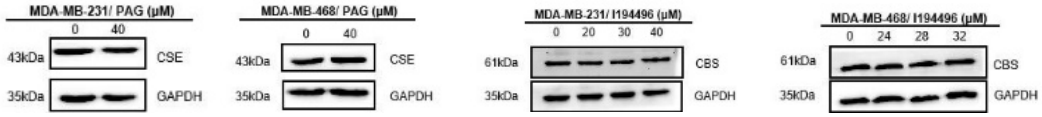

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