

Supplementary

Supplementary table

Table.S1: Primer sequences of siRNAs

siRNAs	sense (5'-3')	anti-sense (5'-3')
siGATA3-1	UCUGGAGGAGGAAUGCCAATT	UUGGCAUUCCUCCUCCAGATT
siGATA3-2	ACGAGAAAGAGUGCCUCAATT	UUGAGGCACUCUUUCUCGUTT
siGATA3-3	UCUGCUUCAUGGAUCCCUATT	UAGGGAUCCAUGAAGCAGATT
siENTPD3-1	GCAUCCAAAGCUACUUCAATT	UUGAAGUAGCUUUGGAUGCTT
siENTPD3-2	GCCAACUAAUUAAUGGGAATT	UUCCCAUUAAAUAGUUGGCTT
siENTPD3-3	CCUCCACCCAAAUAUCCUUTT	AAGGAUAAUUUGGGUGGAGGTT
Negative control	UUCUCCGAACGUGUCACGUTT	ACGUGACACGUUCGGAGAATT

Table. S2: Antibodies

Antibody	Manufacturer	Catalogue	Concentration
Beta actin	Abcam	ab6276	1/4000
ENTPD3	Invitrogen	PA5-24209	1/1000
GATA3	Abcam	ab199428	1/1000
E-cadherin	Abcam	ab1416	1/1000
Vimentin	Abcam	ab92547	1/1000
Anti-mouse	Abcam	ab6728	1/1000
Anti-rabbit	Abcam	ab6721	1/1000

Table. S3: Patient's information

	Luminal A	Triple negative
Count	19	27
Median age	49	47
T1-2	15	15
T3	4	12
T4	0	0
N0-1	16	20
N2	3	7
N3	0	0
M0	19	27
M1	0	0

Supplementary figures

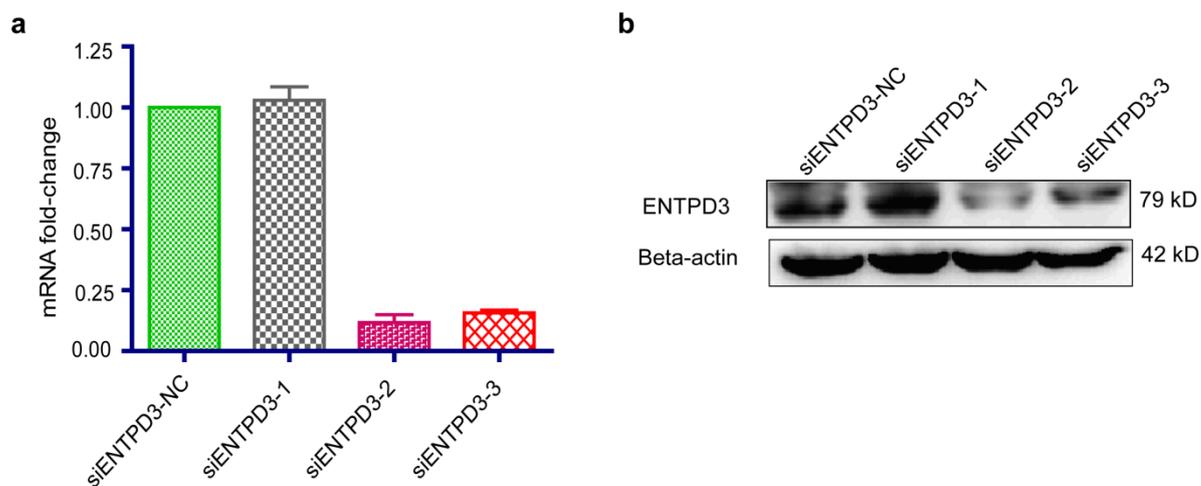


Figure. S1: Interference effect of siRNAs targeting ENTPD3 in MCF-7 cells.

(a) Relative ENTPD3 mRNA (real-time-quantitative) level in MCF-7 cells in which ENTPD3 was knocked down by small interfering (si)RNAs. (b) Relative ENTPD3 protein (west-blotting) level in MCF-7 cells in which ENTPD3 was knocked down by small interfering (si)RNAs. Error bars, s.e.m. Repeated three times for each experiment.

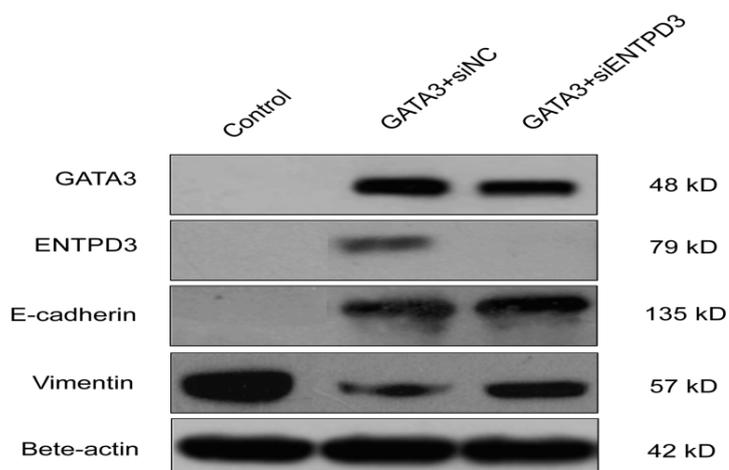


Figure. S2: ENTPD3 rescue the effect of GATA3 on EMT makers.

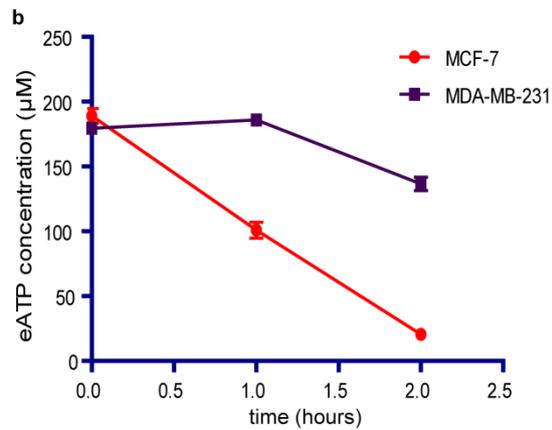
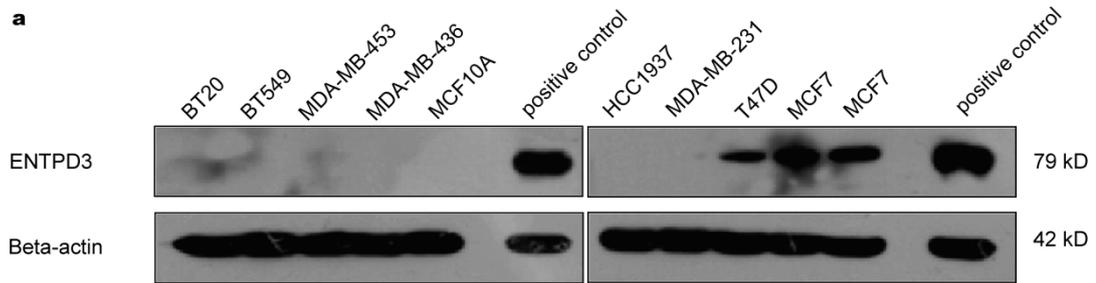


Figure. S3: The expression of ENTPD3 and the degradation of extracellular ATP in different breast cancer cells. (a) ENTPD3 protein level in different breast cancer cell lines. (b) Curve showing extracellular ATP hydrolysis in MCF-7 or MDA-MB-231 cells.

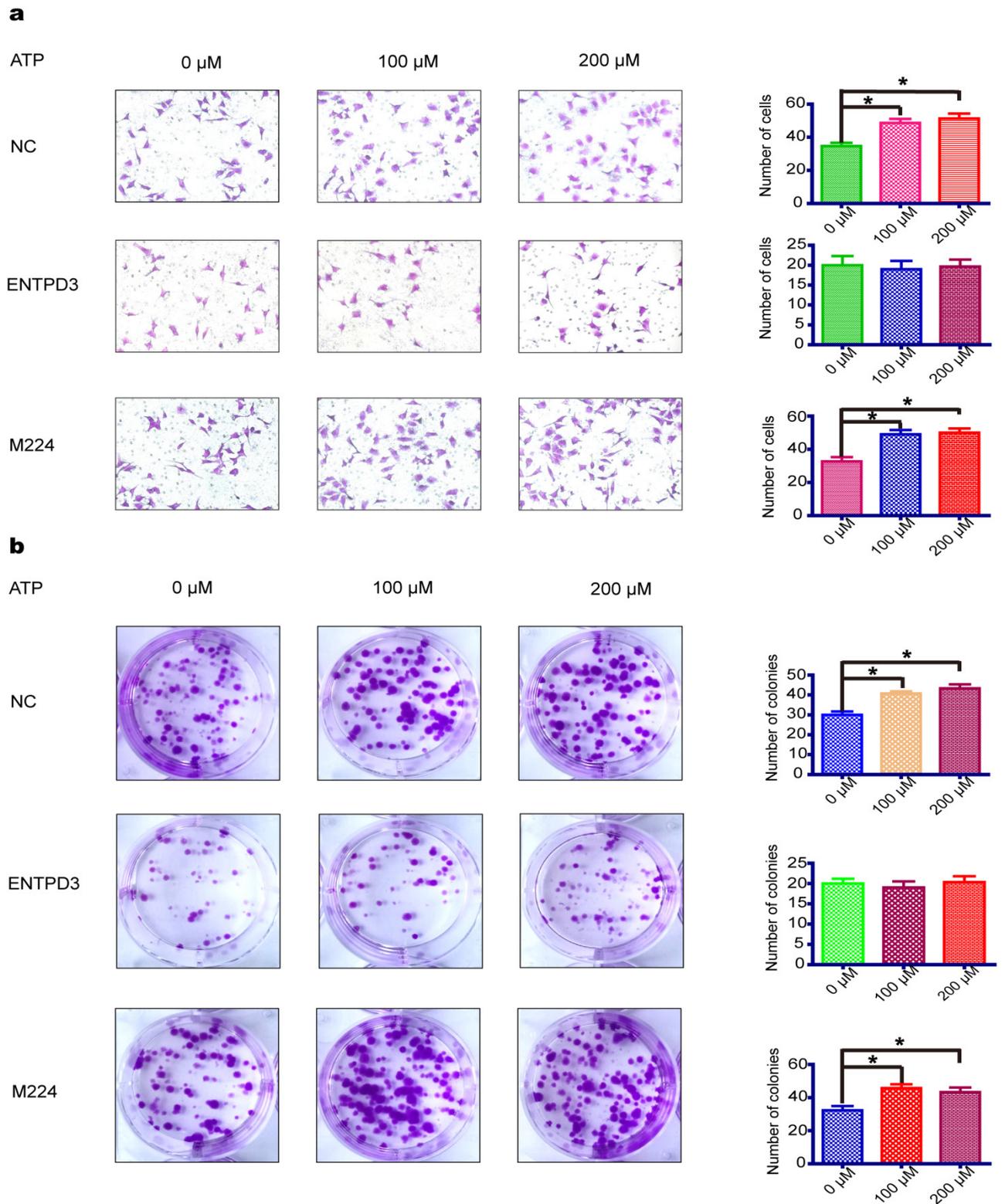


Figure. S4: ENTDP3 reverses pro-metastasis of eATP in breast cancer. (a)

Migration of MDA-MB-231 cells treated with different doses of eATP (* $p < 0.05$,

t -test). (b) Colony formation ability of MDA-MB-231 cells treated with different

doses of eATP (* $p < 0.05$, t -test). NC, normal control, M224, M224 mutagenesis of ENTPD3 serine 224 to alanine. Error bars, s.e.m. Repeated three times for each experiment.

Group	Tumor	No tumor	Total	Tumor ratio
Control	12	0	12	1.00
ENTPD3	7	3	10	0.7
M224	14	0	14	1.00

Figure. S5: Grouping and sample size of animal experiments.

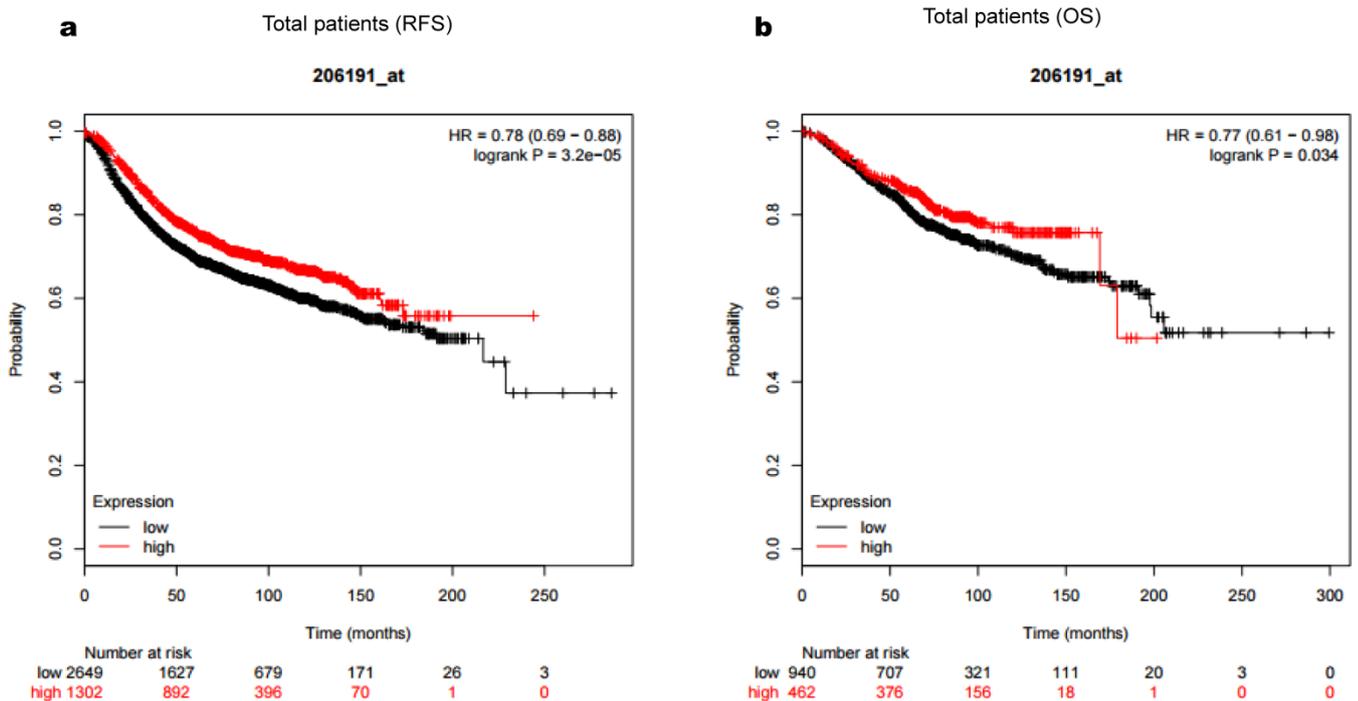


Figure. S6: Patients with high ENTPD3 have a good outcome from the Kaplan Meier plotter database. (a) Recurrence free survival curve in all patients. (b) Overall survival curve in all patients.