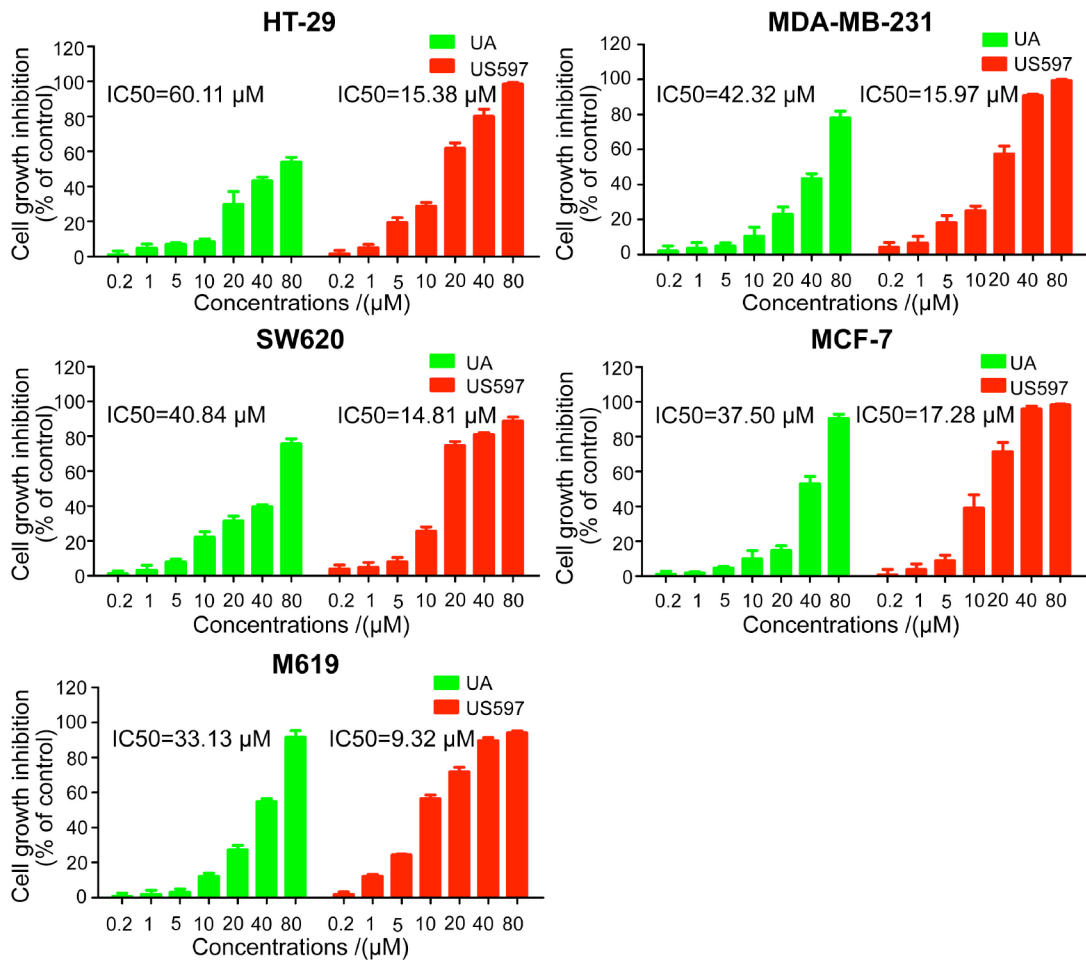
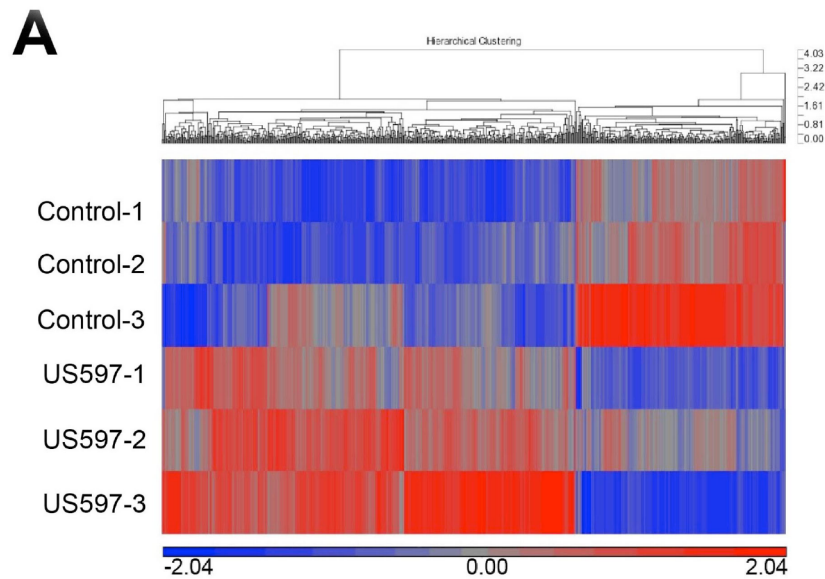


## SUPPLEMENTARY FIGURES AND TABLE



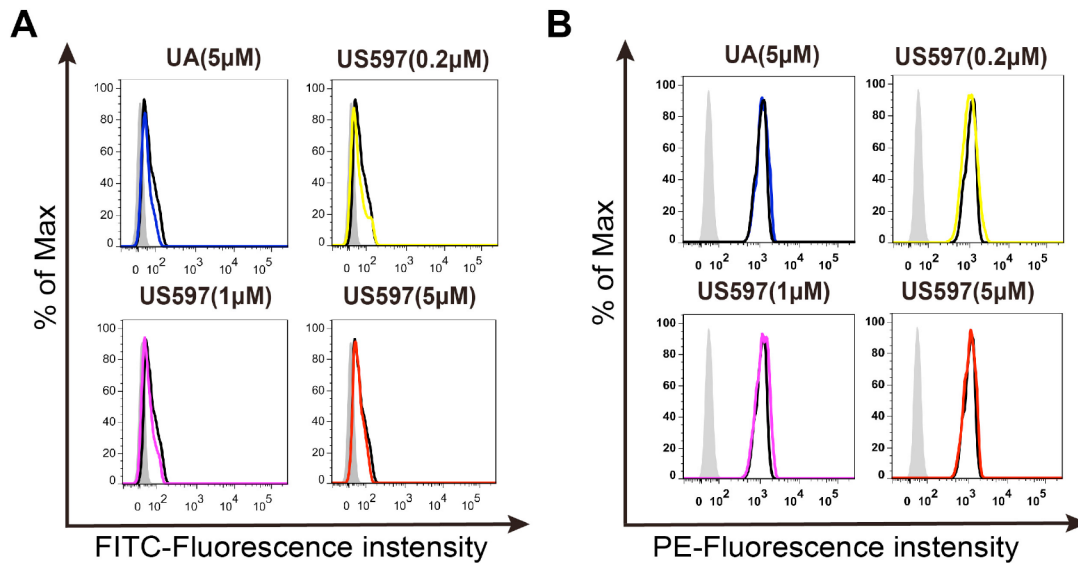
**Supplementary Figure S1:** HT29, SW620, MDA-MB-232, MCF-7 and M619 cells were treated with the indicated concentrations of UA/US597 for 24 h, and cell viability was evaluated by the MTT assay. Results are shown as mean  $\pm$  SD from three separate experiments in each experiment.



**B**

Pathway description	Count	P-Value	Genes name
p53 signaling pathway	9	2.45E-03	CCNE2, CCNB1, TP53I3, CCND3, SERPINE1, RPRM, IGFBP3, PTEN, ATM
Lysosome	10	2.14E-02	LAMP2, SLC17A5, TPP1, AP3M1, HEXB, NEU1, CTSA, CD164, ASAH1, CTSL1
Focal adhesion	13	4.99E-02	ACTB, EGFR, XIAP, ITGA2, BIRC3, PTEN, COL4A6, CDC42, ARHGAP5, CCND3, ITGB8, VEGFA, PARVA
Amino sugar and nucleotide sugar metabolism	5	6.76E-02	PGM3, GNPDA1, MPI, GFPT1, HEXB
Valine, leucine and isoleucine degradation	5	6.76E-02	MCCC2, IVD, ALDH1B1, HMGCS1, PCCB
Small cell lung cancer	7	7.44E-02	CCNE2, XIAP, SKP2, ITGA2, BIRC3, PTEN, COL4A6
Hypertrophic cardiomyopathy (HCM)	7	7.78E-02	ACTB, ACTC1, ITGB8, ITGA2, PRKAA2, TPM1, TPM3
Alanine, aspartate and glutamate metabolism	4	9.39E-02	GLUL, ALDH5A1, GFPT1, ASNS
PPAR signaling pathway	6	9.45E-02	PPARA, OLR1, ACSL4, ACSL3, SLC27A2, FABP5
Terpenoid backbone biosynthesis	3	9.59E-02	HMGCR, HMGCS1, IDI1

Supplementary Figure S2: (A) Heat map depicting microarray gene expression profiling in HepG2 cells treated with 5  $\mu$ M US97 and compared with control. (B) Pathway analysis of the genes obtained from the NLP analysis. There were 134 pathways revealed. Among them, about 11 signaling pathways were significant ( $P < 0.01$ ).



**Supplementary Figure S3:** Flow cytometric analysis the inhibitory effect of UA/US597 on the expression of integrin  $\alpha 4$  (A) and  $\alpha 5$  (B) on HepG2 cells, isotype control (silver area), control (blank curve), blue curve (5  $\mu$ M UA), yellow, purple and red line represents US597 treated group at concentrations of 0.2, 1 and 5  $\mu$ M, respectively.

**Supplementary Table S1:** Pharmacokinetic parameters of US597 after oral administration to SD rats ( $n = 5$ )

Parameters	mean $\pm$ SD
$C_{max}$ ( $\mu$ g/mL)	0.014 $\pm$ 0.011
$T_{max}$ (h)	5.6 $\pm$ 3.578
$t_{1/2}$ (h)	13.173 $\pm$ 9.533
$AUC_{(0-t)}$ ( $\mu$ g·h/mL)	0.155 $\pm$ 0.108
$AUC_{(0-\infty)}$ ( $\mu$ g·h/mL)	0.195 $\pm$ 0.099
CL(mL/h/mg)	501.275 $\pm$ 249.729
$V_d$ (mL/g)	9097.777 $\pm$ 6149.829
$MRT_{0-t}$ (h)	11.109 $\pm$ 1.776
$MRT_{0-\infty}$ (h)	20.56 $\pm$ 10.797