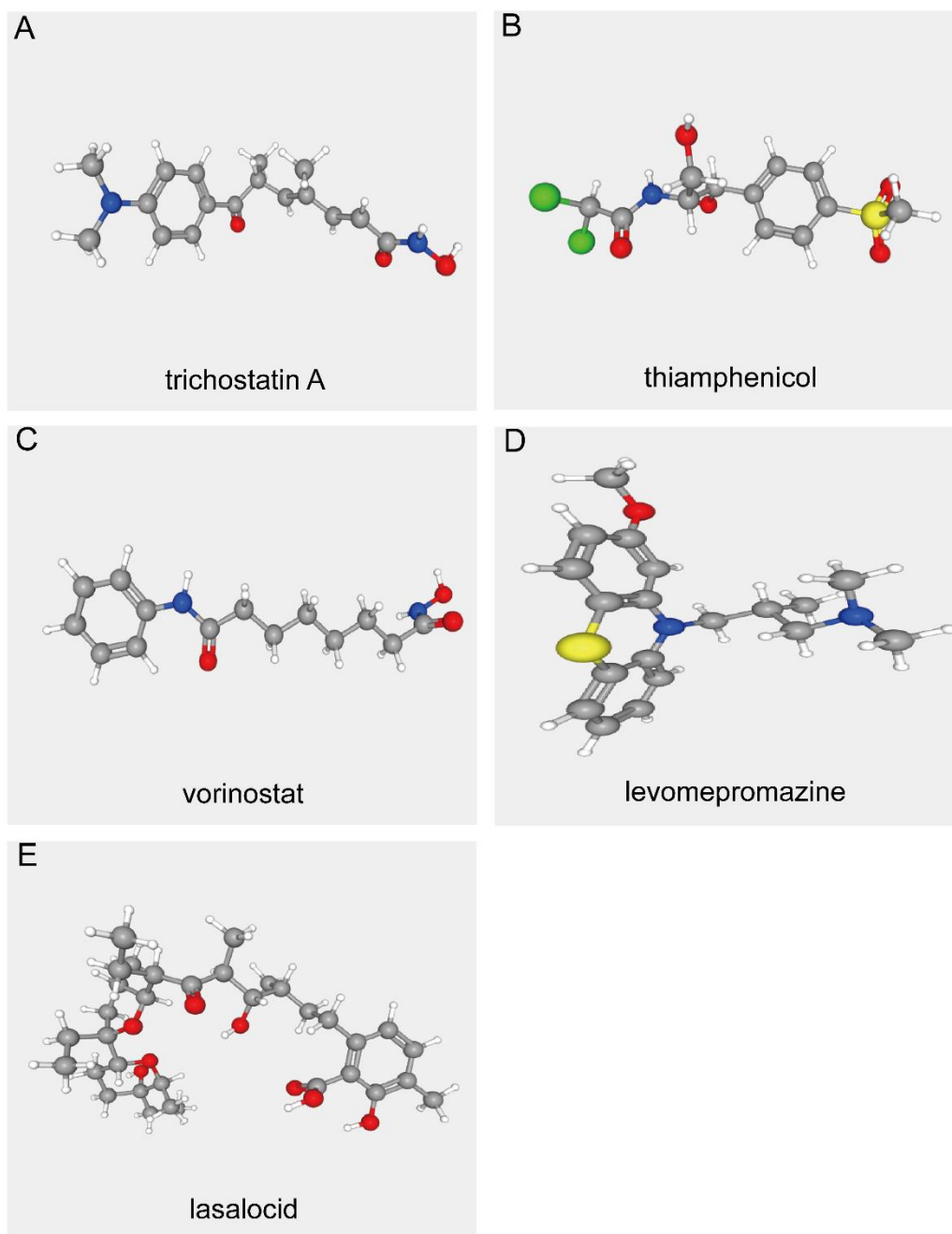


Supplementary Table 1 Detailed information of the expression profile datasets

Dataset	Array types			Experiment type
GSE54129	[HG-U133_Plus_2]	Affymetrix	Human	Expression profiling by array
	Genome U133 Plus 2.0 Array			
GSE26899	Illumina	HumanHT-12 V3.0	expression	Expression profiling by array
	beadchip			
GSE54129	[HG-U133_Plus_2]	Affymetrix	Human	Expression profiling by array
	Genome U133 Plus 2.0 Array			
The Cancer Genome Atlas (TCGA)	Illumina HiSeq platform			RNA-sequencing profiling

Supplementary Table 2 Differentially expressed miRNAs between gastric cancer and adjacent normal tissues

Upregulated genes				Upregulated genes			
Genes	β	HR	P-value	Genes	β	HR	P-value
OLR1	4.93	1.37	8.22E-07	COL5A1	3.35	1.32	8.09E-04
BGN	4.53	1.59	5.90E-06	PLAU	3.33	1.39	8.65E-04
TIMP1	4.48	1.99	7.52E-06	CLDN1	3.26	1.26	1.10E-03
COL8A1	4.43	1.42	9.56E-06	THY1	3.23	1.36	1.26E-03
THBS2	4.36	1.41	1.31E-05	APOC1	3.15	1.20	1.62E-03
COL10A1	4.30	1.25	1.73E-05	COL4A1	3.05	1.51	2.30E-03
OLFML2B	4.22	1.43	2.45E-05	PDGFRB	3.02	1.37	2.53E-03
FAP	4.17	1.43	3.02E-05	COL6A3	2.87	1.37	4.15E-03
CTHRC1	3.99	1.39	6.53E-05	COL1A2	2.59	1.41	9.49E-03
SERPINH1	3.96	1.61	7.62E-05	MAMDC2	2.42	1.03	0.016
SFRP4	3.88	1.24	1.04E-04	COL12A1	2.39	1.22	0.017
AADAC	3.87	1.54	1.09E-04	CDH3	2.28	1.13	0.023
SULF1	3.86	1.38	1.12E-04	COL1A1	2.15	1.50	0.031
COL5A2	3.79	1.43	1.49E-04	SERPINE1	2.14	1.16	0.033
FNDC1	3.65	1.22	2.65E-04	CXCL10	2.02	1.12	0.044
CST1	3.61	1.14	3.03E-04				
Downregulated genes				Downregulated genes			
Genes	β	HR	P-value	Genes	β	HR	P-value
CYP4F12	-3.55	0.81	3.85E-04	MUC5AC	-2.30	0.95	0.021
SELENBP1	-3.49	0.77	4.76E-04	GPT	-2.30	0.78	0.021
FAM3D	-2.72	0.90	6.61E-03	PDIA2	-2.26	0.91	0.023
ALDH3A1	-2.66	0.89	7.82E-03	MAL	-2.24	0.87	0.024
SIDT2	-2.56	0.71	0.010	CHGA	-2.23	0.90	0.025
MAOA	-1.42	0.90	0.015	TNFRSF17	-2.17	0.91	0.030
ESRRG	-2.40	0.89	0.016	SLC28A2	-2.00	0.94	0.045
LTF	-2.37	0.94	0.018				



Supplementary Figure 1 The 3D conformer of the five candidate small molecule drugs for GC. A: trichostatin A, B: thiamphenicol, C: vorinostat, D: levomepromazine, and E: lasalocid. GC: gastric carcinoma.