

Supplementary Table 1. Hematoxylin-eosin staining of lungs to evaluate the presence of lung metastasis in nude mice

	With lung metastasis	Without lung metastasis
PBS	8	2
Control miRNA	9	1
miR-194	3	7

Statistical Method: Chi-square test and Fisher's Exact test; PBS vs control miRNA, *P* value=0.99, control miRNA vs miR-194, *P* value=0.0198.

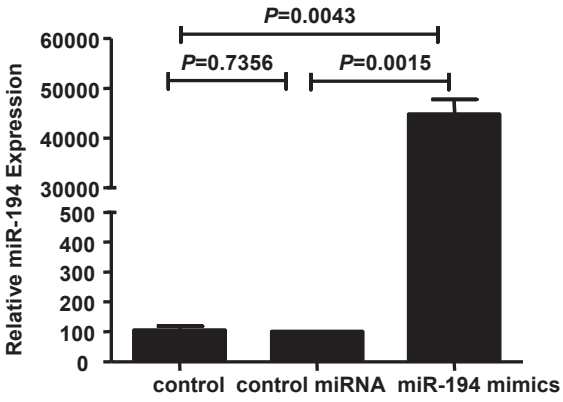
Supplementary Fig. 1 (A) Real-time PCR quantification of miR-194 in HCT116 cell after transfected with miR-194 mimics or control miRNA and the empty control. **(B)** Propidium iodide (PI) and flow cytometry confirmed cell cycle in HCT116 and SW1116 cells. Respectively, G0/G1 phase arrest and S phase arrest were detected. **(C)** Annexin V-staining and flow cytometry analyzed apoptosis in HCT116 and SW1116 cells. Western blot revealed that miR-194 enhanced expression of cleaved caspase3 in HCT116. β -actin was used as the loading control.

Supplementary Fig. 2 (A) Schematic illustration of the predicted miR-194-binding sites in IGF1R, Fizzled-4, DNMT3A and AKT2 3'-UTR. **(B)** mRNA levels of IGF1R, Fizzled-4 and DNMT3A after miR-194 mimics transfection in HCT116 and SW1116 cells. **(C)** Real time PCR examined the expression of miR-194 in xenograft tumors of three groups. All values were normalized to U6 expression. All experiments were repeated at least three separate times; Data are shown as mean \pm SD,

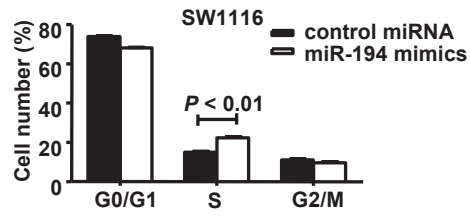
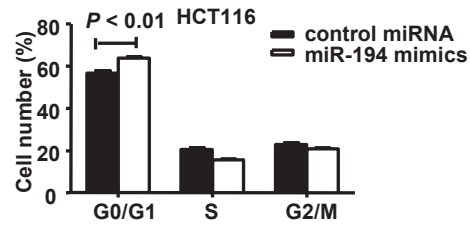
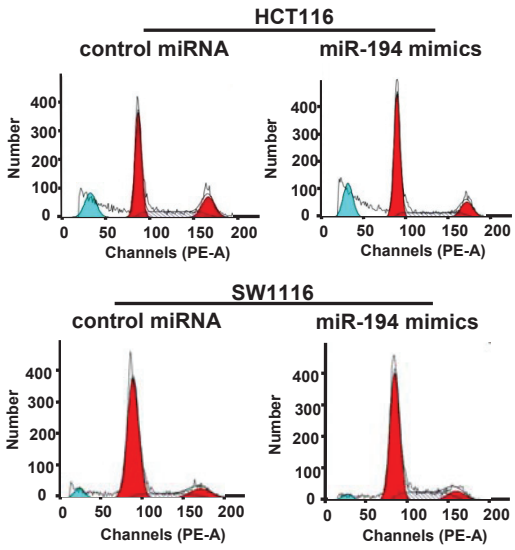
Supplementary Fig. 3 (A) The expression level of miR-194 in response to TSA treatment in CRC cells. **(B)** The expressions level of miR-194 and EZH2 after transfection of EZH2 siRNA and control siRNA in CRC and **(C)** gastric cancer

Supplementary Fig. 1

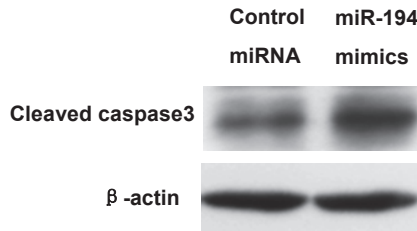
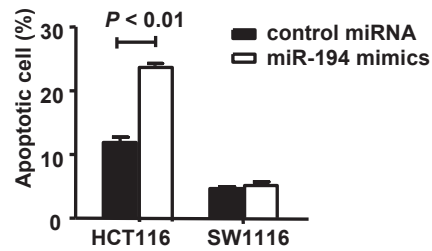
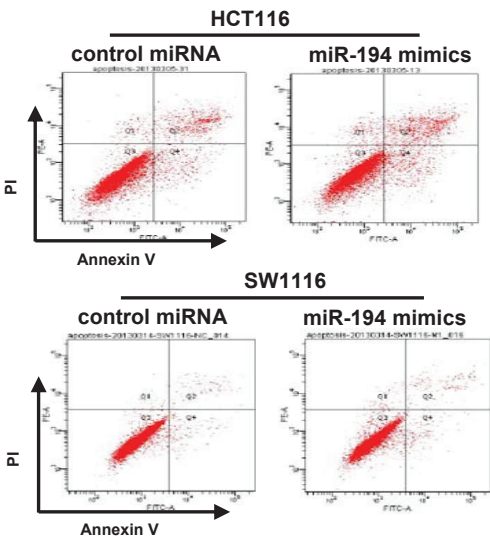
A



B



C



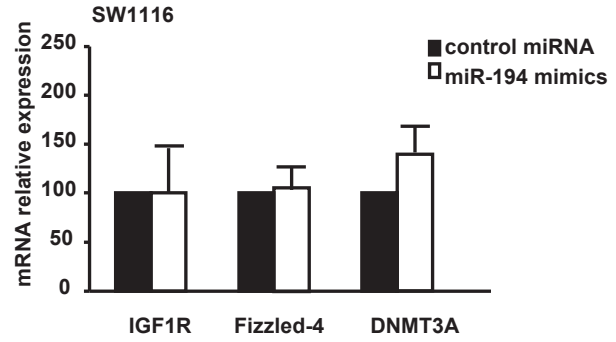
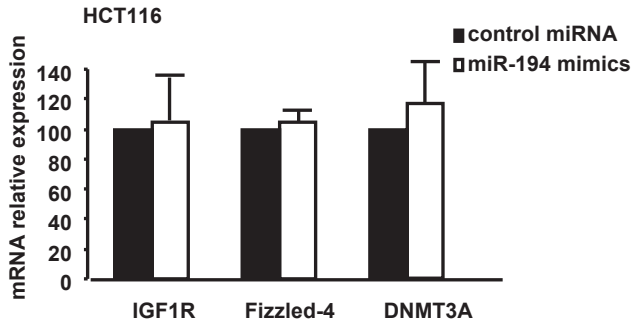
Supplementary Fig. 2

A

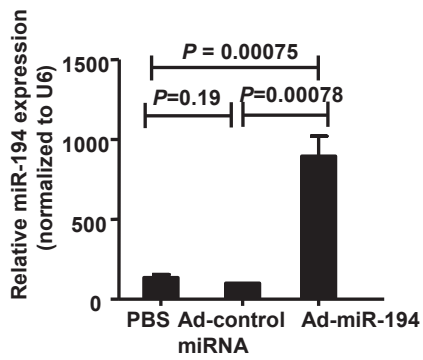
miR-194 3' AGGUGU**ACCUC**AAC **GACAAUGU**
 IGF1R 5' ...UCACAGCAU**UGGAGC**--**CUGUUACA**...
 NM_000875

miR-194 3' AGGUGU**ACCUC**AAC **GACAAUGU**
 DNMT3A 5' ...AGUUUCUAGAAGCCGC**UGUUACC**...

miR-194 3' AGGUGU**ACCUC**AAC**GACAAUGU**
 Frizzled-4 5' ...CUGGGUUCAGAAAAG**UGUUACA**...



B



Supplementary Fig. 3

