

## **SUPPLEMENTAL INFORMATION**

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### **Supplemental figure and table legends**

**Figure S1 Schematic graphs for the plasmids used in the current study.**

**Figure S2 Overexpression of miR-29b significantly reduced MMP2 and MMP9 activity.** BGC823 cells were transfected with miRNA expression plasmids or control plasmid as indicated. Cell medium was harvested for Gel Zymography analysis 24 h after the transfection.

**Figure S3 Sequence alignment showing that miR-29-5ps are evolutionarily conserved in human.**

**Table S1 Plasmids and the primers used for their construction. Lic, ligation independent cloning.**

**Table S2 A list of the primers used for qPCR analyses of mRNAs and miRNAs. LNA, locked nucleic acid.**

**Table S3 A list of the antibodies used for immunoblots (IB) in current study.**

Figure S1

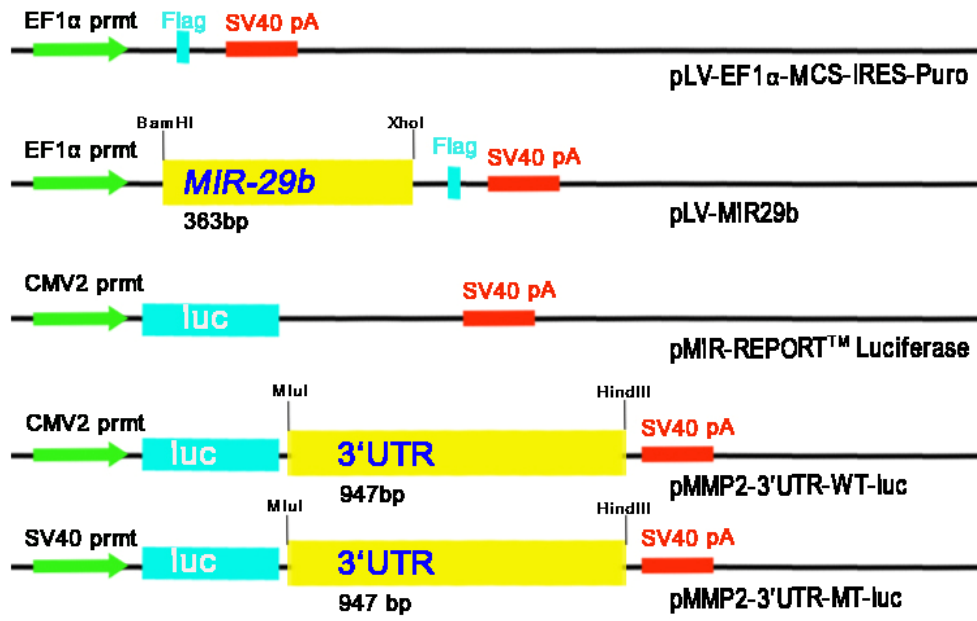
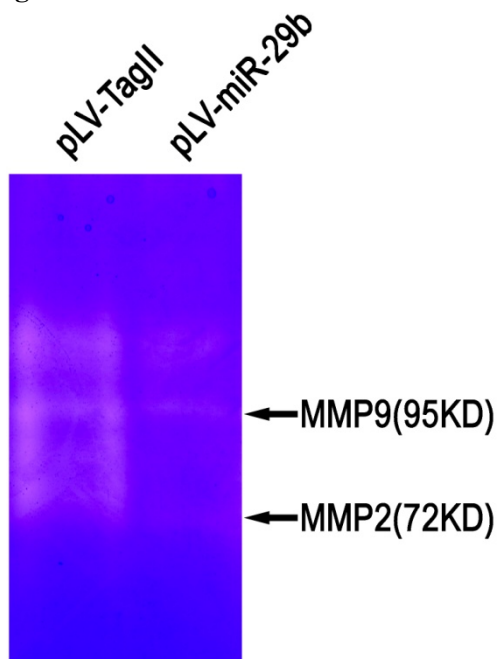


Figure S2



**Figure S3**

(1) 1 10 26

hsa-miR-29a-5p (1) --ACUGAUUUUCUUUUGGUGUUCAG--

hsa-miR-29b-1-5p (1) --G CUGGUUUC AUAUGGUGGUUAGA

hsa-miR-29b-2-5p (1) ---CUGGUUUCACAUGGUGGCUUAG--

hsa-miR-29c-5p (1) UGACCGAUUUUCUCCUGGUGUUC----

Consensus (1) ACUGGUUUCUUAUGGUGUUUAG

**Table S1**

<b>Plasmid</b>	<b>Backbone vector</b>	<b>Template</b>	<b>Primer sequence (from 5' → 3')</b>	<b>Gene ID</b>	<b>Insert size (bp)</b>
pLV-MIR29b	pLV-EF1 $\alpha$ -MCS-IRES-Puro	BGC823 genomic DNA	Forward (lic): <u>AGAGAAATTCGGATCCAATAAGGGAGTCCCAGGCATG</u> Reverse (lic): <u>CCATGGCTCGAGCCCTTCTCACAGCCATCCTGCTGT</u>	MI0000105	363
pMMP2-3'UT R-WT-luc	pMIR-REPORT <sup>TM</sup> Luciferase	BGC823 cDNA	Forward: CG <u>ACGCGT</u> GCCTGGAGAACTAGAGAAGGA Reverse: CCC <u>AAGCTT</u> CAGGGCTCTTTCTACAGGAC	NM_004530.5	947
pMMP2-3'UT R-MT-luc	pMIR-REPORT <sup>TM</sup> Luciferase	BGC823 cDNA	Forward: CTGCTTTGGGCTGCCCTG <u>C(G)TC(G)</u> CTGCCACA <u>CTTC</u> Reverse: GAGCAGGGCAGCCCAAAGCAGGGCTGCG	NM_004530.5	947

**Table S2**

<b>Gene</b>	<b>Gene ID</b>	<b>Primer sequence (5' → 3')</b>	<b>Amplicon (bp)</b>
miR-29b	MIMAT0000100	Reverse transcription: GTCGTATCCAGTGC GTGTCGTGGAGTCGGCAATTGCACTGGATACGACTAACACT Forward: GGGGTAGCACCATTTGAA (LNA) Reverse: TGCGTGTCGTGGAGTC	65
U6	NR_004394.1	Reverse transcription: CGCTTCACGAATTTGCGTGTCAT Forward: GCTTCGGCAGCACATATACTAAAAT (LNA) Reverse: CGCTTCACGAATTTGCGTGTCAT	89
MMP2	NM_004530.5	Forward: ATCCTATGACAGCTGCACCAC Reverse: CACCTTCTGAGTTCCCACCAA	140
18S rRNA	NR_003286.2	Forward: CGACGACCCATTCGAACGTCT Reverse: CTCTCCGGAATCGAACCCTGA	102

**Table S3**

<b>Antibody</b>	<b>Cat#</b>	<b>Dilution/ Working concentration</b>	<b>Supplier</b>
Goat anti-Mouse IgG	31430	1:5000	Pierce Biotechnology, Inc., Rockford, IL, USA
Goat anti-Rabbit IgG	31360	1:5000	Pierce
anti- $\alpha$ -tubulin	sc-5286	1:5000	Santa Cruz Biotechnology, Inc., CA, USA
anti- $\beta$ -actin	sc-47778	1:5000	Santa Cruz
anti-MMP2	ab92536	1:3000	Abcam, Cambridge, London, UK
anti-PCNA	sc-7907	1:3000	Santa Cruz