Additional file 1:

Table S1. miRNAsequence for MMP7 genes
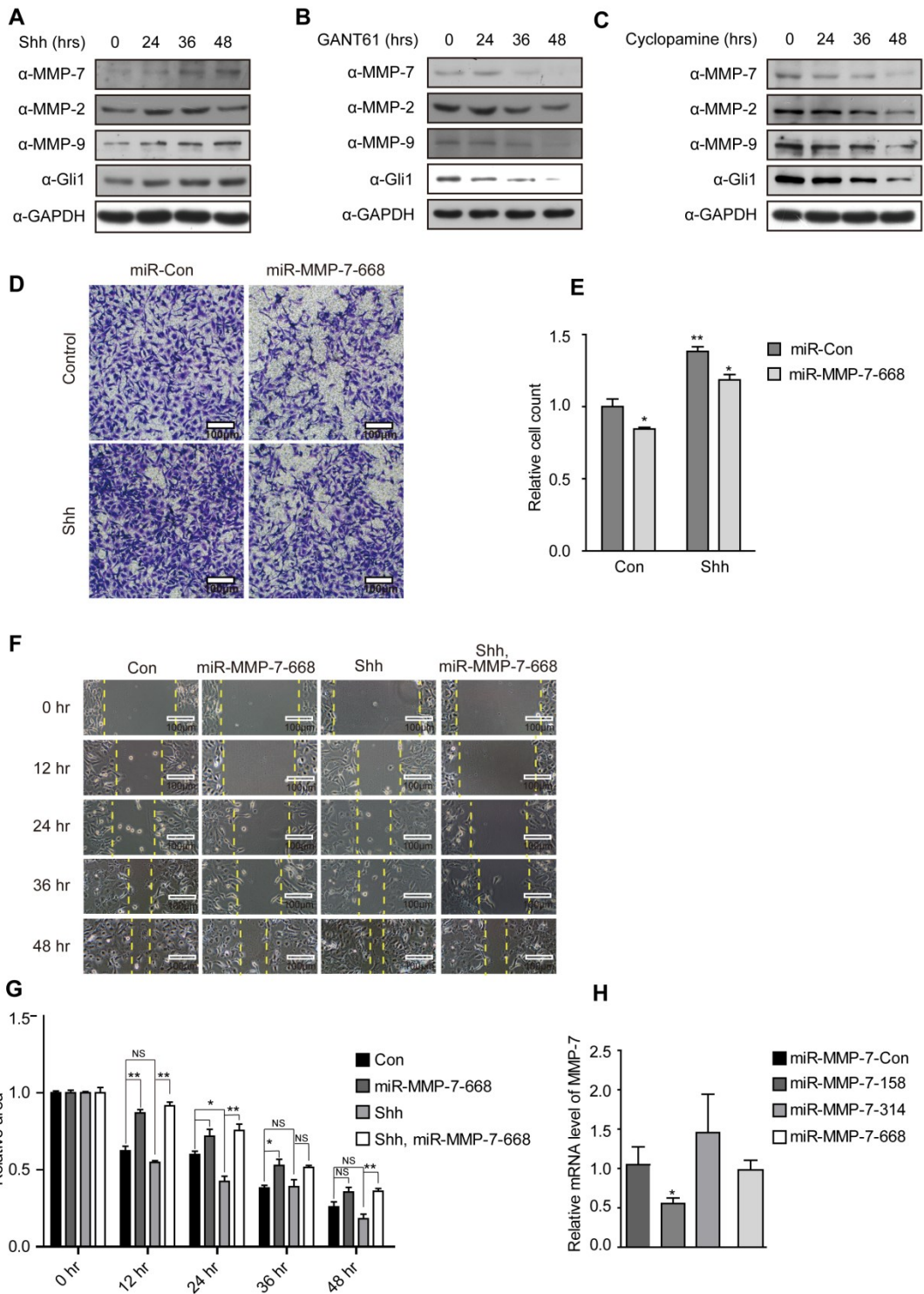
Name	Sequence (5' to 3 ')
MMP7-158F	5'-TGCTGTGAGTTTGGCTTCTAAACTGTGTTTTGGCCACTGACTGACACAGTTTAAGCCAAACTCA-3 '
MMP7-158R	5'-CCTGCTTAAAGCCCAATGTGACCGTCAGTCAGTGGCCAAAACGGTCACATGGTGGGCTTTAAGC-3 '
MMP7-314F	5'-TGCTGTGTAGGTGACCACTTTGGAAGGTTTTGGCCACTGACTGACTGACACAGTTTAAGCCAAACTCA-3 '
MMP7-314R	5'-CCTGTGTAGGTGACCTTTGGAAGGTCAGTCAGTGGCCAAAACCTTCCAAAGTGGTCACCTACAC-3 '
MMP7-688F	5'-TGCTGATAGGTTGGATACATCACTGCGTTTTGGCCACTGACTGACGCAGTGATATCCAACCTAT-3 '
MMP7-688R	5'-CCTGATAGGTTGGATATCACTGCGTCAGTCAGTGGCCAAAACGCAGTGATGTATCCAACCTATC-3 '

Additional file 2:

Table S2. Primers used for real-time PCR amplification

Genes	Forward primer (5' to 3')	Reverse primer (5' to 3')
Gli1	5'-TCCTACCAGAGTCCCAAGTT-3'	5'-CCCTATGTGAAGCCCTATTT-3'
Gli2	5'-CCTGGCATGACTACCACTATGAG-3'	5'-GGCTTGGCTGGCATGTTG-3'
MMP7	5'-TTCCAAAGTGGTCACCTACAG-3'	5'-AGTTCCCCATACAACTTTCCTG-3'
GAPDH	5'-CAGGGCTGCTTTTAACTCTGGT-3'	5'-GATTTTGGAGGGATCTCGCT-3'

Supplementary Figure 1

A

Shh (hrs) 0 24 36 48

α-MMP-7

α-MMP-2

α-MMP-9

α-Gli1

α-GAPDH

B

GANT61 (hrs) 0 24 36 48

α-MMP-7

α-MMP-2

α-MMP-9

α-Gli1

α-GAPDH

C

Cyclopamine (hrs) 0 24 36 48

α-MMP-7

α-MMP-2

α-MMP-9

α-Gli1

α-GAPDH

D

miR-Con   miR-MMP-7-668

Control

Shh

E

F

Con   miR-MMP-7-668   Shh   Shh, miR-MMP-7-668

0 hr

12 hr

24 hr

36 hr

48 hr

G

H

Supplementary Figure S1

S1A ES-2 cells incubated with N-Shh for 0 hr, 24 hrs, 36 hrs, or 48 hrs were harvested for WB analysis for the detection of Gli1 and MMP-2, MMP-7, MMP-9 expression. Data are shown as mean ± SD (n = 3).

S1B ES-2 cells treated with GANT61 for 0 hr, 24 hrs, 36 hrs, or 48 hrs were harvested for WB analysis for the detection of Gli1 and MMP-2, MMP-7, MMP-9 expression. Data are shown as mean ± SD (n = 3).

S1C ES-2 cells treated with Cyclopamine for 0 hr, 24 hrs, 36 hrs, or 48 hrs were harvested for WB analysis for the detection of Gli1 and MMP-2, MMP-7, MMP-9 expression. Data are shown as mean ± SD (n = 3).

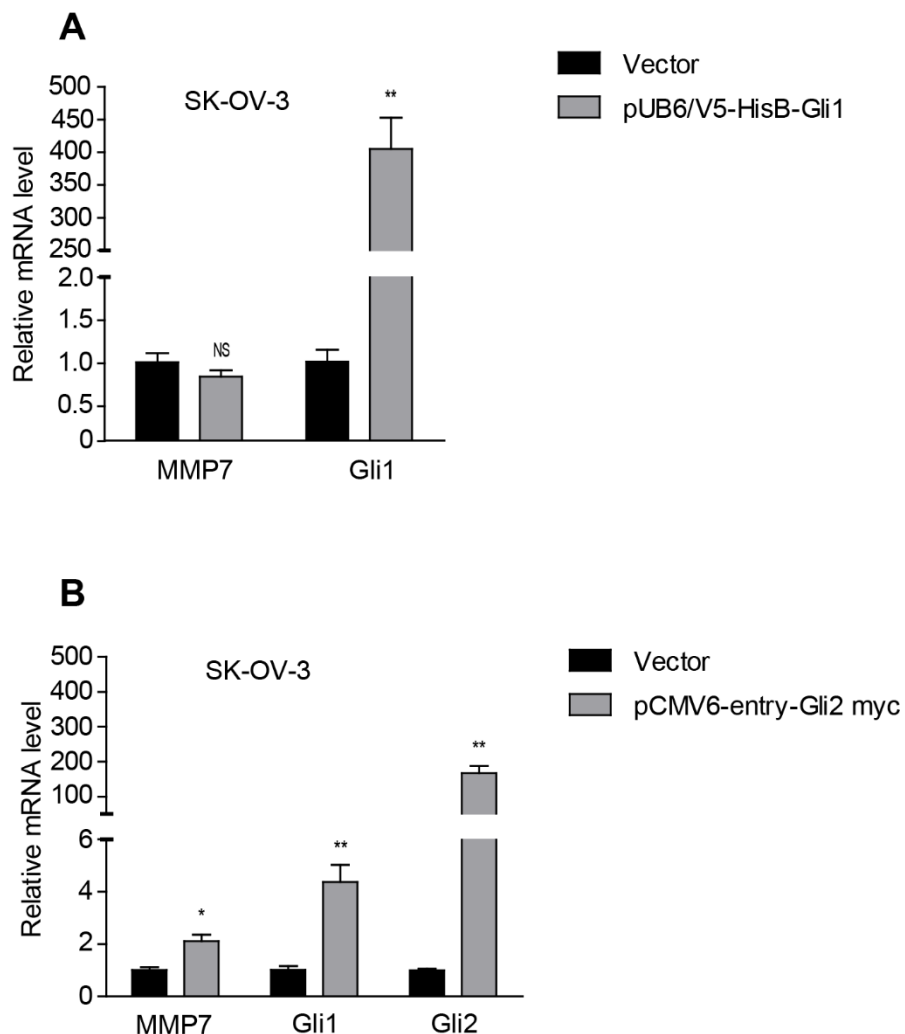**S1D** MMP-7-668 constructs knockdown reduces N-Shh-induced invasive ability of SK-OV-3 cells. Scale bar, 100 μm.

S1E Quantification analysis of the cell counts shown in Figure. S1D. Data are shown as mean ± SD (n = 3).**P <0.01.

S1F MMP-7-668 constructs knockdown inhibits the N-Shh-stimulated migratory ability of SK-OV-3 cells.Scale bar, 100 μm.

S1G Quantification analysis of the wound areas shown in Figure. S1F using NIH Image-Pro Plus software. Data are shown as mean ± SD (n = 3).*P <0.05, **P <0.01.

S1H Validation of the knockdown efficiencies of three miR-MMP-7 constructs (miR-MMP-7-158, miR-MMP-7-314, and miR-MMP-7-668) in SK-OV-3 cells by qPCR.

Supplementary Figure 2

A

B

S2A: SK-OV-3 cells transfected with plasmids of pUB6/V5-hisB-Gli1 or empty vector were subjected to real-time PCR analysis for Gli1 and MMP-7. NS: Not significant, **P＜0.01.

S2B: SK-OV-3 cells transfected with plasmids of pcMV6-entry-Gli2-myc or empty vector were subjected to real-time PCR analysis for Gli2, Gli1 and MMP-7. **P＜0.01，*P＜0.05.