

## MiR-338-3p inhibits epithelial-mesenchymal transition in gastric cancer cells by targeting ZEB2 and MACC1/Met/Akt signaling

### Supplementary Material

#### Supplementary Table 1

The sequences of primer used for dual-luciferase reporter plasmid.

Primer	Forward (5'-3')	Reverse (5'-3')
<b>ZEB2</b>	TAAACTACTGCATTTTAAGC TTCCTATTT	ACTGAAAAACTGTCTTAGAAAATCA CG
<b>Mut ZEB2</b>	AATTTCTTTTGAAAATGACC <u>TACGAGCAATAAAAATGTA</u> GCCAAACT	AGTTTGGCTACATTTTATT <u>GCTCGT</u> <u>AGGTCATTTTCAAAGAAATT</u>
<b>MACC1</b>	CCGCTCGAGGGAGCTGAAT AGGTGCAGAT	ATAAGAATGCGGCCGCCTGCCTCAG CCTCCTGAGTA
<b>Mut MACC1</b>	CCACCCTGGGATATTTGGTA TGCC <u>ACCAATGGTAATTCAA</u> ATT	AATTTGAATTACCATTG <u>GTGGC</u> CATAC CAAATATCCCAGGGTGG

## Supplementary Table 2

### The sequences of primer used for qRT-PCR.

<b>Primer</b>	<b>Forward (5' -3')</b>	<b>Reverse (5' -3')</b>
<b>E-cadherin</b>	CTGCTGCAGGTCTCCTCTTG	TGTCGACCGGTGCAATCTTC
<b>N-cadherin</b>	ACAGTGGCCACCTACAAAGG	CCGAGATGGGGTTGATAATG
<b>Fibronectin</b>	GACCACATCGAGCGGATCTG	GTCTCTTGGCAGCTGACTCC
<b>Vimentin</b>	AAGGCGAGGAGAGCAGGATT	GGTCATCGTGATGCTGAGAAG
<b>ZEB2</b>	CTCTTCCCACACGCTTAGTT	GGCCTAAGCTTACAGTGTCATG
<b><math>\beta</math>-actin</b>	TGGATCAGCAAGCAGGAGTA	TCGGCCACATTGTGAACTTT

## Supplementary Results

**Supplementary Table 3**

**Clinicopathological characteristics of GC patients**

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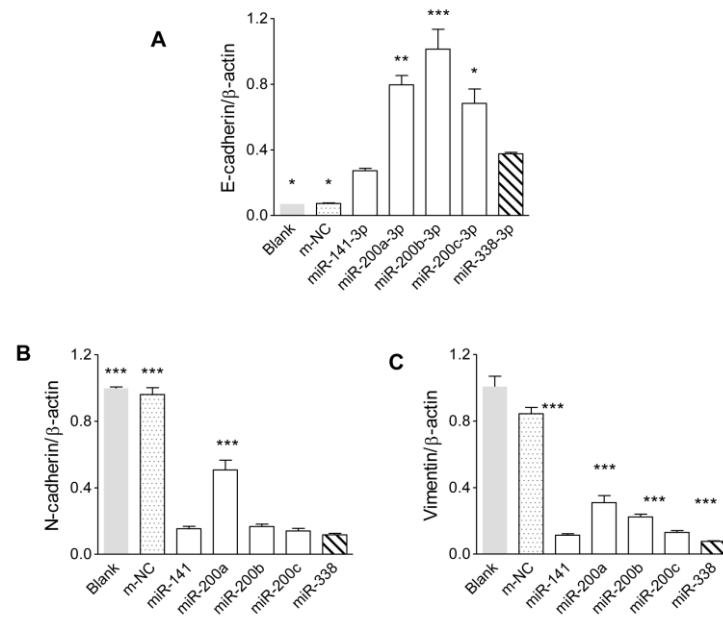
<b>Case</b>	<b>Age</b>	<b>Gender</b>	<b>Histological differentiation</b>	<b>Clinical stage</b>	<b>T classification</b>	<b>N classification</b>	<b>Metastasis</b>
<b>1</b>	74	Male	Moderately	IV	T4b	N1	Yes
<b>2</b>	53	Male	Poorly	IIIC	T4b	N3	No
<b>3</b>	71	Male	Moderately	IIB	T4a	N0	No
<b>4</b>	55	Male	Poorly	IV	T4a	N1	Yes
<b>5</b>	69	Male	Poorly	IIA	T2	N1	No
<b>6</b>	44	Male	Poorly	IIIB	T4a	N2	No
<b>7</b>	62	Female	Well	IA	T1b	N0	No
<b>8</b>	46	Male	Poorly	IIA	T1b	N2	No
<b>9</b>	70	Male	Poorly	IIB	T2	N2	No

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<b>10</b>	79	Male	Poorly	IB	T2	N0	No
<b>11</b>	41	Male	Poorly	IA	T1b	N0	No
<b>12</b>	56	Male	Well	IB	T2	N0	No
<b>13</b>	77	Male	Poorly	IIIC	T4a	N3	No
<b>14</b>	57	Male	Poorly	IIIB	T4b	N1	No
<b>15</b>	73	Male	Moderately	IIIA	T4a	N1	No
<b>16</b>	51	Female	Poorly	IIIA	T4a	N1	No
<b>17</b>	61	Male	Moderately	IIA	T2	N1	No
<b>18</b>	58	Female	Poorly	IIIB	T4a	N2	No
<b>19</b>	78	Male	Moderately	IIIC	T4b	N2	No
<b>20</b>	48	Male	Poorly	IIIA	T4a	N1	No

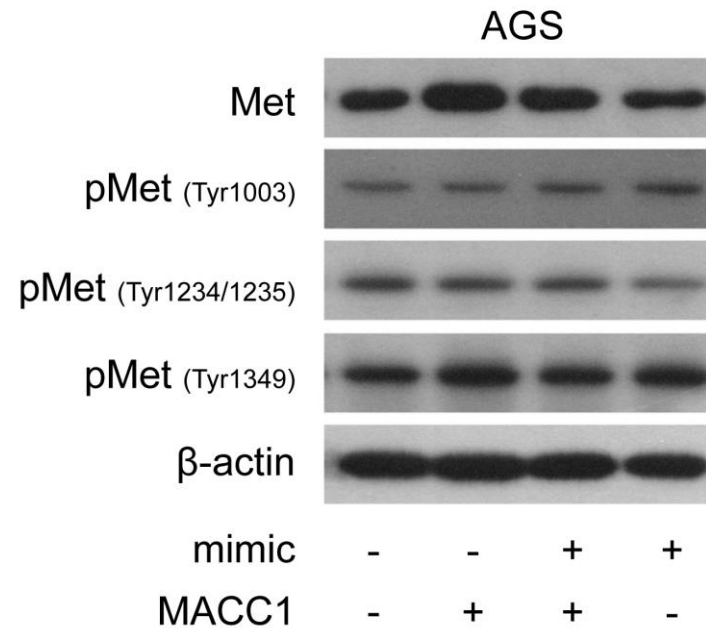
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**Figure S1. E-cadherin, N-cadherin, and vimentin mRNA expression levels in MKN-28 cells transfected with miR-200 family (miR-200a-3p, miR-200b-3p, miR-200c-3p and miR-141-3p) mimics or miR-338-3p mimics by qRT-PCR.**

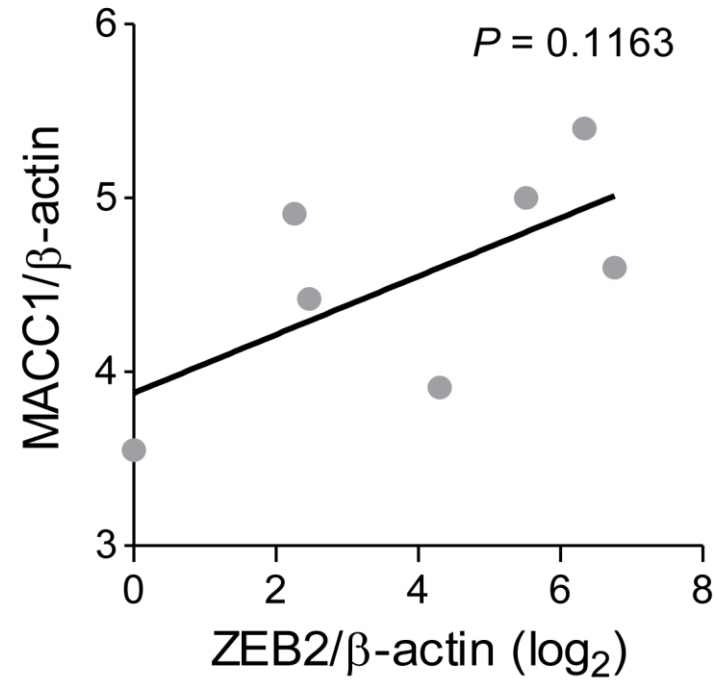
(A) Compared with miR-338-3p, the expression of E-cadherin mRNA was significantly increased in MKN-28 cells transfected with miR-200b-3p, miR-200a-3p, or miR-200c-3p. (B and C) N-cadherin and vimentin mRNA levels in miR-338-3p-transfected cells were lower than the levels in miR-200a-3p-transfected cells.

\* $P < 0.05$ , \*\* $P < 0.01$  and \*\*\* $P < 0.001$ .



**Figure S2. Western blot analysis of MACC1, Met and p-Met protein expression in AGS cells.**

MiR-338-3p decreased Met and pMet (Tyr1234/1235) expression. Restoring MACC1 expression increased the protein expression of Met and pMet (Tyr1234/1235) in mimic transfected cells.



**Figure S3. No significant correlation was found between MACC1 and ZEB2.**