

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Clinicopathological features of patients (N=13) with brain metastases of NSCLC.**

Characteristic	No. of cases	%
<b>HoxB9 expression</b>		
Low	5	38.5
High	8	61.5
<b>Sex</b>		
Male	7	53.8
Female	6	46.2
<b>Age (years)</b>		
<60	8	61.5
≥60	5	38.5
<b>Pathological type</b>		
Adenocarcinoma	10	76.9
Squamous cell carcinoma	3	23.1
<b>Brain metastasis-free survival (months)</b>		
≤12	9	69.2
>12	4	30.8

**Supplementary Table 2. qPCR primers and siRNA sequences.**

Gene symbol	Sequences
HOXB9	forward:5'-CCATTTCTGGGACGCTTAGCA-3', reverse: 5'-TGTAAGGGTGGTAGACGGACG-3'.
MMP9	forward:5'-GCGCTGGGCTTAGATCATTC -3', reverse: 5'- AGGTGCCGGATGCCATT-3'.
ZEB1	forward:5'- AAGTGGCGGTAGATGGTAATGT -3', reverse: 5'- AAGGAAGACTGATGGCTGAAAT-3'.
SNAIL	forward:5'- CTCGGACCTTCTCCCGAATG -3', reverse: 5'- AAAGTCCTGTGGGGCTGATG -3'.
TWIST	forward:5'-GCCAGGTACATCGACTTCCTCT -3', reverse: 5'-TCCATCCTCCAGACCGAGAAGG -3'.
GAPDH	forward: 5'-CAATGACCCCTTCATTGACC-3', reverse: 5'-GACAAGCTTCCCGTTCTCAG-3'.
Si-HOXB9	siRNA1: 5'-CCCTTCAATTTGTAGACTCTT-3', siRNA2: 5'-CTCCTCAATCTGAGTGAGAGA-3'.
Si-MMP9	siRNA1: 5'-GTACCGCTATGGTTACACT-3', siRNA2: 5'-GCAACGTGAACATCTTCGA-3'.

**Supplementary Table 3. Primary antibodies used for western blot analysis.**

<b>Antibodies</b>	<b>Species</b>	<b>Manufacture</b>	<b>Catalog#</b>	<b>Dilution</b>
HOXB9	Rabbit	Abcam	ab133701	1:1000
Flag	Mouse	Proteintech	60002-1-Ig	1:1000
E-cadherin	Rabbit	Proteintech	20874-1-AP	1:500
Vimentin	Rabbit	Proteintech	20874-1-AP	1:1000
ZEB1	Rabbit	Proteintech	22018-1-AP	1:1000
ZO-1	Mouse	Abcam	Ab61357	1:1000
VE-cadherin	Rabbit	Abcam	ab205336	1:1000
Claudin-5	Rabbit	Abcam	ab131259	1:1000
MMP9	Mouse	Abcam	Ab58803	1:1000
$\beta$ -actin	Mouse	Proteintech	60008-1-Ig	1:1000