

Table S1. Correlation between FLI1 and clinical characteristics in NPC patients.

Variable	No.of patients	FLI1		X ²	P Value
		Low	High		
Age, years				1.045	0.307
<60	109	36 (33.0%)	73 (67.0%)		
≥60	41	10 (24.4%)	31 (75.6%)		
Gender				0.071	0.790
Male	112	35 (31.3%)	77 (68.8%)		
Female	38	11 (28.9%)	27 (71.1%)		
AJCC stage				9.836	0.019
Stage I	17	8 (47.1%)	9 (52.9%)		
Stage II	71	27 (38.0%)	44 (62.0%)		
Stage III	42	6 (14.3%)	36 (85.7%)		
Stage IV	20	5 (25.0%)	15 (75.0%)		

Table S2. Multivariate analysis of prognostic factors for OS in NPC patients.

Variable	HR (95% CI)	P value
Age, years		<0.0001*
<60	1.00 (Reference)	
≥60	4.411 (2.472-7.872)	
Gender		0.762
Female	1.00 (Reference)	
Male	0.893 (0.429-1.860)	
AJCC stage		<0.0001*
Stage I	1.00 (Reference)	
Stage II	2.129 (0.275-16.470)	
Stage III	7.464 (0.990-56.290)	
Stage IV	12.941 (1.663-100.712)	
FLI1-TIE1 level *		0.029*
Low	1.00 (Reference)	
High	1.933 (1.071-3.487)	

* FLI1-TIE1 level is defined as high when both FLI1 and TIE1 levels were high, and low when either FLI1 or TIE1 level was low.

Table S3. Multivariate analysis of prognostic factors for LRFS in NPC patients.

Variable	HR (95% CI)	P value
Age, years		0.230
<60	1.00 (Reference)	
≥60	1.383 (0.815-2.350)	
Gender		0.213
Female	1.00 (Reference)	
Male	0.678 (0.368-1.249)	
AJCC stage		<0.0001*
Stage I	1.00 (Reference)	
Stage II	7.963 (1.076-58.945)	
Stage III	10.370 (1.387-77.509)	
Stage IV	31.354 (4.121-238.564)	
FLI1-TIE1 level *		0.001*
Low	1.00 (Reference)	
High	2.223 (1.359-3.637)	

* FLI1-TIE1 level is defined as high when both FLI1 and TIE1 levels were high, and low when either FLI1 or TIE1 level was low.

Table S4. Multivariate analysis of prognostic factors for PFS in NPC patients.

Variable	HR (95% CI)	P value
Age, years		0.161
<60	1.00 (Reference)	
≥60	1.463 (0.860-2.489)	
Gender		0.212
Female	1.00 (Reference)	
Male	0.678 (0.369-1.248)	
AJCC stage		<0.0001*
Stage I	1.00 (Reference)	
Stage II	7.815 (1.055-57.873)	
Stage III	10.275 (1.375-76.804)	
Stage IV	32.688 (4.302-248.375)	
FLI1-TIE1 level *		0.002*
Low	1.00 (Reference)	
High	2.137 (1.308-3.494)	

* FLI1-TIE1 level is defined as high when both FLI1 and TIE1 levels were high, and low when either FLI1 or TIE1 level was low.

Table S5. List of primers used in this study.

Gene	Sequence (5'to 3')
shRNA sequence	
shRNA-FLI1-F	CCGGGCTATATGGACGAGAAGAACTCGAGTTCTTCTCGTC CATATAGCTTTTTG
shRNA-FLI1-R	AATTCAAAAAGCTATATGGACGAGAAGAACTCGAGTTCT TCTCGTCCATATAGC
siRNA sequences	
siRNA-FLI1	GCUAUAUGGACGAGAAGAATT
siRNA-TIE1	GCAACGGAUCCUACUUCUATT
Real time RT-PCR primers	
GAPDH-F	GTCTCCTCTGACTTCAACAGCG
GAPDH-R	ACCACCCTGTTGCTGTAGCCAA
FLI1-F	ACGGAAGTGCTGTTGTACACC
FLI1-R	CAAGCTCCTCTTCTGACTGAGTC
TIE1-F	ATGGCTGCTCTTGTGGATCTGG
TIE1-R	CGGTCACAAGTGCCACCATTCT
TIE1 promoter primers	
-1735 to +25 of the promoter region	
Forward	TTTCTCTATCGATAGGTACCaactgtgccaatatctgtgtca
Reverse	GATCGCAGATCTCGAGCTGCTCAGCCTGTGTTG
-1735 to -1507 of the promoter region	
Forward	TTTCTCTATCGATAGGTACCaactgtgccaatatctgtgtca
Reverse	GATCGCAGATCTCGAGagtggatgccttacactca

Table S6. List of antibodies used in this study.

Antibody	Company	Catalog no.	Dilution
Western blot			
Anti-FLI1 Antibody, Rabbit Monoclonal	Abcam	ab133485	1:1000
TIE1 (D2K2T), Rabbit mAb	CST	23111S	1:1000
Cleaved Caspase-3 (Asp175) Antibody, Rabbit	CST	9661S	1:1000
Anti-gamma H2A.X (phospho S139) Antibody, Mouse Monoclonal	Abcam	ab26350	1:1000
PI3 Kinase p85 Antibody, Rabbit	CST	4292S	1:1000
Anti-PI 3 Kinase p85 alpha (phospho Y607) Antibody, Rabbit Polyclonal	Abcam	ab182651	1:1000
Akt (pan) (11E7), Rabbit mAb	CST	4685S	1:1000
Phospho-Akt (Ser473) (D9E) XP® , Rabbit Monoclonal	CST	4060S	1:2000
Phospho-Akt (Thr308) (D25E6) XP®, Rabbit Monoclonal	CST	13038S	1:1000
Phospho-ATR (Ser428) Antibody, Rabbit	CST	2853T	1:1000
Phospho-ATM (Ser1981) (D25E5), Rabbit mAb	CST	13050S	1:1000
Phospho-Chk1 (Ser345) (133D3), Rabbit Monoclonal	CST	2348T	1:1000
Phospho-Chk2 (Thr68) (C13C1), Rabbit Monoclonal	CST	2197T	1:1000
GAPDH Antibody, Rabbit Polyclonal	Proteintech	10494-1-AP	1:5000
HRP-conjugated Affinipure Goat Anti-Mouse IgG(H+L)	Proteintech	SA00001-1	1:10000
HRP-conjugated Affinipure Goat Anti-Rabbit IgG(H+L)	Proteintech	SA00001-2	1:10000
Immunofluorescence			
Anti-gamma H2A.X (phospho S139) Antibody, Mouse Monoclonal	Abcam	ab26350	1:200
Cy3 Goat Anti-Mouse IgG (H+L)	Abclonal	AS008	1:200
Immunohistochemistry			
Anti-FLI1 Antibody, Rabbit Monoclonal	Abcam	ab133485	1:400
Anti-TIE1 antibody, Rabbit Polyclonal	Bioss	bs-1334R	1:200
Cleaved Caspase-3 (Asp175) Antibody, Rabbit	CST	9661S	1:400
ChIP			
DYKDDDDK tag antibody (Binds to FLAG® tag epitope), Rabbit Polyclonal	Proteintech	20543-1-AP	2ug