

Table S1. Clinical pathologic characteristics of the three cohorts of OSCC

Characteristics	Microarray cohort (n=40)	Validation cohort (n=46)	Survival cohort (n=75)
Age			
< 60	36	35	61
≥ 60	4	11	14
T stage			
T1	1	4	6
T2	22	18	33
T3	9	9	17
T4	8	15	19
N stage			
N0	23	28	46
N1	7	8	12
N2	10	10	17
TNM stage			
I	1	3	5
II	14	10	19
III	10	11	19
IV	15	22	32
Treatment			
OP ^a	17	27	40
OP+RT ^b	17	12	23
OP+CCRT ^c	6	7	12
Perineural invasion^d			
No	15	24	35
Yes	25	22	40
AngioLymphatic^e			
No	22	26	41
Yes	18	20	34
Recurrence status			
No	30	30	53
Yes	10	16	22

^aOP, operation; ^bOP+RT, operation plus radiotherapy; ^cCCRT, concurrent chemoradiotherapy;

^dperineural invasion refers to the invasion of cancer to the space surrounding a nerve refers to the invasion of cancer to the space surrounding a nerve; ^eAngiolymphatic invasion means that cancer was found in the blood vessels and lymph vessels.

Table S2. shRNA clone* target sequence used in this study.

Name	Clone ID	Target Sequence (5'-3')
Control	TRC001	pLKO.1-base empty vector
shDDR1-D1	TRCN0000121163	TGCTGACATGAAGGGACATTT
shDDR1-A1	TRCN0000121086	GCAGGTCCACTGTAACAACAT

***Purchased from the National RNAi Core Facility (Academia Sinica, Taipei, Taiwan)**

Table S3. Primers sequence used in this study.

Primer name	Sequence (5'-3')
<i>For gene expression</i>	
ANK1 (F)	GGCCCGCAACGACGACACG
ANK1 (R)	AATGTGCAGGGGCGTGAATC
DDR1 (F)	CATGAGCCGGAACCTCTA
DDR1 (R)	CCACAGGGTCACACCAA
GAPDH (F)	GAAGGTGAAGGTCGGAGT
GAPDH (R)	GAAGATGGTGATGGGATTTC
<i>For MSP</i>	
ANK1-M (F)	GAGCGTTCGGTTCGATAG
ANK1-M (R)	TACGAAACCTATAACGTACG
ANK1-U (F)	GGGAGTGTTTGGTTTGATAGT
ANK1-U (R)	CTCTACAAAACCTATAACATACA
<i>For ChIP</i>	
ANK1 (F)	CTCTTGTAATCTGCGGTCC
ANK1 (R)	GGGGCCTGTGACGTG
<i>For miRNA</i>	
Universal reverse	GTGCAGGGTCCGAGGT
miR-486-3p (RT)	GTTGGCTCTGGTGCAGGGTCCGAGGTATTTCGCA CCAGAGC CAACATCCTG
miR-486-3p (F)	GCGGGGCAGCTCAGTA
RNU44 (RT)	GTTGGCTCTGGTGCAGGGTCCGAGGTATTTCGCA CCAGAGCCAACAGTCAG
RNU44 (F)	GCCCTGGATGATGATAGCAA

F, forward; R, reverse; RT, primer sequence for reverse transcription

Table S4. Correlation of the DDR1 expression with clinicopathological factors in 40 OSCC patients (n=40)

Characteristics	DDR1 RNA expression		<i>p</i> value [#]
	Low (n=17)	High (n=23)	
Age			
Years (mean ± SD)	48±8.3	50±9.7	0.5278
Stage			0.0829
I+II	9	6	
III+IV	8	17	
Tumor status			0.1500
T1-2	12	11	
T3-4	5	12	
Lymph node status			0.0369*
N0	13	10	
N1-N3	4	13	
Perineural invasion ^a			0.0166*
No	10	5	
Yes	7	18	
AngioLymphatic ^b			0.0091**
No	13	8	
Yes	4	15	
Recurrence status			0.3558
No	14	16	
Yes	3	7	

[#]*p* value for age was derived from a two-tailed Student's *t* test. SD represents standard deviation; other *p* values were derived with a two-tailed Pearson chi-square test. **p* < 0.05; ***p* < 0.01.

^aperineural invasion refers to the invasion of cancer to the space surrounding a nerve; ^bAngiolymphatic invasion means that cancer was found in the blood vessels and lymph vessels.

Table S5. Cox univariate and multivariate regression analysis of DDR1 and prognostic factors for overall survival in microarray cohort (n=40)

Variables	Univariate		Multivariate	
	coefficient	p-value	coefficient	p-value
Age	0.01506	0.62	0.02408	0.49
TNM stage (I+II vs. III+ IV)	0.4372	0.46	0.64728	0.377
Treatment (Op only vs. Op +)	-0.09291	0.863	-0.39764	0.515
DDR1	0.5534	0.463	0.37662	0.665

Op +, Op +RT or Op + CCRT

Table S5. Cox univariate and multivariate regression analysis of DDR1 and prognostic factors for overall survival in validation cohort (n=46)

Variables	Univariate		Multivariate	
	coefficient	p-value	coefficient	p-value
Age	-0.0056	0.823	-0.01186	0.658
TNM stage (I+II vs. III+ IV)	0.5116	0.367	0.39174	0.578
Treatment (Op only vs. Op +)	0.4730	0.317	0.30965	0.594
DDR1	-0.0085	0.984	-0.01825	0.968

Op +, Op +RT or Op + CCRT

Table S7. Cox univariate and multivariate regression analysis of DDR1 and prognostic factors for overall survival in survival analysis cohort (n=75)

Variables	Univariate		Multivariate	
	coefficient	p-value	coefficient	p-value
Age	0.0171	0.403	0.007767	0.718
TNM stage (I+II vs. III+ IV)	0.6729	0.149	0.834273	0.1236
Treatment (Op only vs. Op +)	0.1877	0.632	-0.299162	0.5128
DDR1 (low vs. high)	0.8499	0.0307*	0.90453	0.0273*

Op +, Op +RT or Op + CCRT

***Two-sided Cox proportional hazards regression using normal approximation and $p < 0.05$ was considered statistically significant.**