

Figure S1. Immunohistochemical analysis of Ror2 in normal and cancerous tissues from OPSCC specimens. Ror2 is highly expressed in tumor cells, but not in normal cells. OPSCC tissue sections were stained with hematoxylin and eosin (H&E) and anti-Ror2 antibodies, respectively. Representative images are shown. Scale bars, 1,000 μ m. OPSCC, oropharyngeal squamous cell cancer. Ror2, receptor tyrosine kinase like orphan receptor 2.

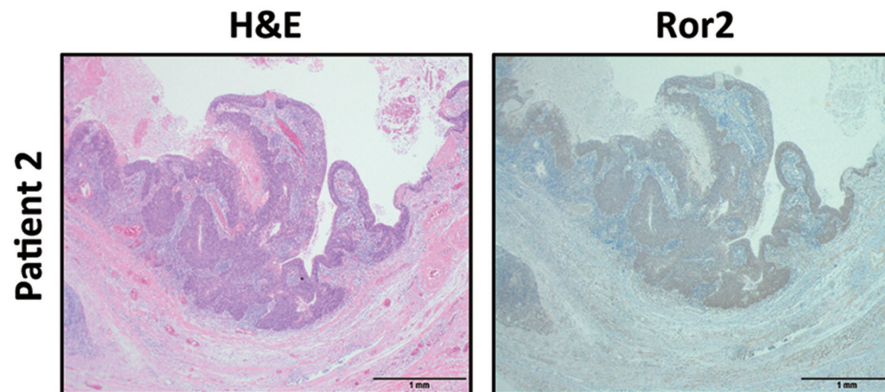


Figure S2. E6/7 play a critical role in proliferation and invasive ability of UPCI:SCC152 cells. (A) Viable cell numbers of HPV-positive UPCI:SCC152 cells transfected with the indicated siRNAs were measured using the WST-8 assay at the indicated time points. Data are expressed as mean \pm standard deviation (n=5; *P<0.05, ***P<0.001, Tukey's honest significance difference test). (B) Relative number of invaded HPV-positive UPCI:SCC152 cells transfected with the indicated siRNAs were analyzed using the Matrigel invasion assay. Data are expressed as mean \pm standard deviation (n=5; *P<0.05, Tukey's honest significance difference test). HPV, human papilloma virus.

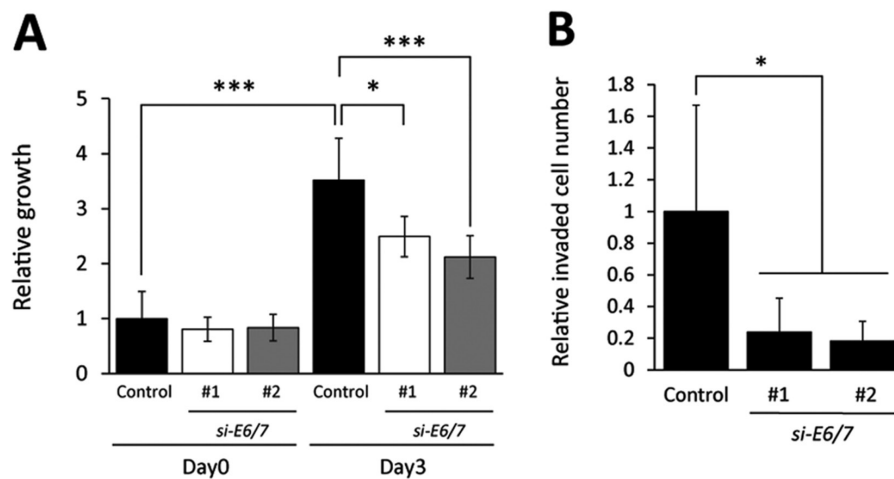


Figure S3. *Ror2* knockdown does not affect the invasive ability of HPV-negative HNSCC cell lines. The relative number of invaded HPV-negative UM-SCC-22B (A) and Ca9-22 (B) cells transfected with the indicated siRNAs were analyzed using the Matrigel invasion assay. Data are expressed as the mean \pm standard deviation (n=3; n.s., not significant; Tukey's honest significance difference test). *Ror2*, receptor tyrosine kinase like orphan receptor 2; HPV, human papilloma virus; HNSCC, head and neck squamous cell cancer.

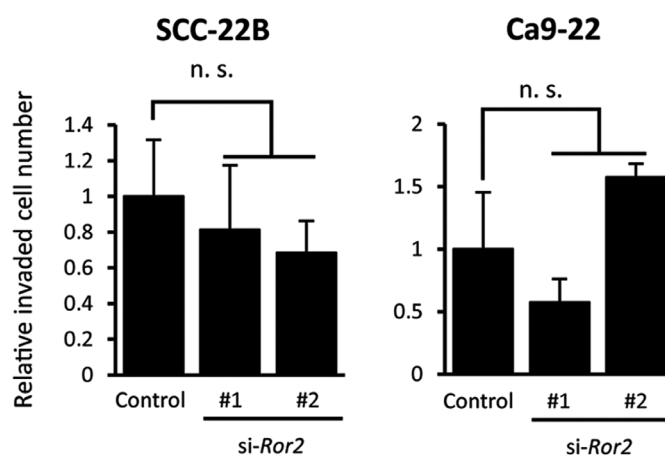


Table SI. Clinicopathologic characteristics of the oropharyngeal squamous cell cancer patients.

No.	Age (years)	Sex	T	N	M	Location	DF follow-up	OA follow-up	LR	DM	PS	p16	HPV-DNA (G5+/6+)
1	53	M	1	1	0	Tonsil	1	1	+	-	Alive	+	+
2	80	F	2	0	0	Base of tongue	61	61	-	-	Alive	+	+
3	67	F	2	0	0	Base of tongue	59	59	-	-	Alive	+	+
4	76	M	1	0	0	Tonsil	35	35	-	-	Alive	+	+
5	59	M	1	0	0	Tonsil	36	36	-	-	Alive	+	-
6	65	M	2	0	0	Lateral wall	35	35	-	-	Alive	-	-
7	57	M	1	0	0	Base of tongue	28	28	-	-	Alive	-	-
8	67	M	1	0	0	Base of tongue	20	20	-	-	Alive	-	-
9	76	M	2	0	0	Base of tongue	11	17	+	-	Alive	-	-
10	86	M	2	0	0	Lateral wall	14	14	-	-	Alive	-	-

M, male; F, female; T, tumor size; N, lymph nodes; M, metastasis; DF, disease-free; OA, overall; LR, local recurrence; DM, distant metastasis; HPV, human papilloma virus.