

Supplementary materials

Figure S1. The expression of APOBEC3A protein in cervical cancer (Human Protein Atlas). The expression of APOBEC3A protein in normal and cervical cancer tissues stained by immunohistochemistry, the protein was localized in the nucleus.

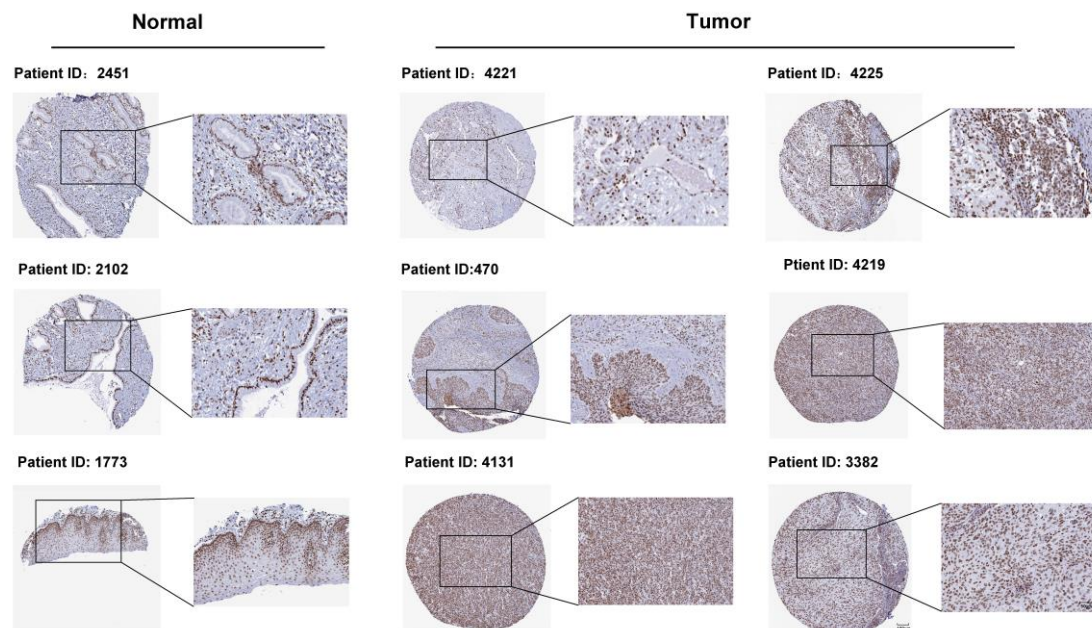


Table S1. Primer and probe sequences for genotyping *APOBEC3A* genetic polymorphisms

SNP	Region	Names	Sequence (5'-3')
rs12157810 (-535 A>C)	Promoter	Forward Primer	CAGCCAGGGAAGAAGATGCA
		Reverse Primer	CCTGGAGAAAGACCCTGAAT
		Wt Probe	HEX-CAGAGAGC <u>A</u> CAGGAT-MGB
		Mt Probe	FAM-CCTAACAGAGAGC <u>C</u> TAG-MGB
rs12628403 (+4340 A>C)	Intron	Forward Primer	GGGACTGAAACCAGGATGTG
		Reverse Primer	GATAAGTCACGCTCCCGCT
		Wt Probe	FAM-CTGAGAGTC <u>A</u> TGGGC-MGB
		Mt Probe	HEX-CTGAGAGTC <u>C</u> TGGGC-MGB

FAM, 6-carboxyfluorescein; HEX, 6-hexachloro-fluorescein; SNP, single nucleotide polymorphism; MGB, minor groove binding fluorescein.

Table S2. Immune molecules significantly correlated with APOBEC3A expression in CESC (TISIDB)

Category	Molecule	Rho	p
TIL	Tem_CD8	0.41	8.05e-14
	Act_CD4	0.397	6.73e-13
Immunoinhibitor	Imm_B	0.378	1.05e-11
	CD56bright	0.412	4.85e-14
	CD274	0.411	6.41e-14
	CTLA4	0.373	2.18e-11
	TIGIT	0.361	1.04e-10
Immunostimulator	KDR	-0.133	0.0196
	C10orf54	0.489	<2.2e-16
	CD276	-0.251	9.11e-06
	ICOSLG	0.4	4.22e-13
	RAET1E	0.398	5.78e-13
MHC	TNFRSF25	0.443	<2.2e-16
	TNFSF13	-0.271	1.62e-06
	TNFSF15	-0.198	0.000507
	HLA-DQA2	0.237	2.98e-05
	HLA-E	0.369	3.49e-11
	TAP1	0.335	2.24e-09
	TAP2	0.331	3.74e-09

MHC, major histocompatibility; TIL, tumor-infiltrating lymphocytes.

Table S3. Clinicopathological characteristics of study patients (n = 91)

Variables	n	%
Age at diagnosis [years] Median (range)	47	25 - 66
Age [years]		
≤39	20	22.0
>39	71	78.0
Histology		
Squamous cell carcinoma	82	90.1
Adenocarcinoma	6	6.6
Adenosquamous carcinoma	3	3.3
Tumor size (cm)		
≤5	52	57.1
>5	13	14.3
Missing	26	28.6
Differentiation		
Well	79	86.8
Moderate	4	4.4
Poor	2	2.2
Unknown	6	6.6
FIGO stage		
IA1-IB1	56	61.5
IB2-IIA2	34	37.4
IIB	1	1.1
Chemotherapy after surgery		
Yes	61	67.0
No	17	18.7
Missing	13	14.3
Radiotherapy after surgery		
Yes	56	61.5
No	22	24.2
Missing	13	14.3
rs12157810 genotype (-535 A>C)		
AA	49	53.8
AC	38	41.8
CC	2	2.2
Missing	2	2.2
rs12628403 genotype (+4340 A>C)		
AA	13	14.3
AC	42	46.2
CC	33	36.3
Missing	3	3.3

FIGO, Federation of Gynecologists and Obstetrician.