

Supplementary Materials: Comprehensive Transcriptome Analysis Reveals the Distinct Gene Expression Patterns of Tumor Microenvironment in HPV-Associated and HPV-Non Associated Tonsillar Squamous Cell Carcinoma

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Table S1. UniGene, GenBank, Symbol and description of Genes.

UniGene	GenBank	Symbol	Description
Hs.431048	NM_005157	ABL1	C-abl oncogene 1, non-receptor tyrosine kinase
Hs.525622	NM_005163	AKT1	V-akt murine thymoma viral oncogene homolog 1
Hs.158932	NM_000038	APC	Adenomatous polyposis coli
Hs.367437	NM_000051	ATM	Ataxia telangiectasia mutated
Hs.624291	NM_004324	BAX	BCL2-associated X protein
Hs.517461	NM_004327	BCR	Breakpoint cluster region
Hs.34012	NM_000059	BRCA2	Breast cancer 2, early onset
Hs.599762	NM_001228	CASP8	Caspase 8, apoptosis-related cysteine peptidase
Hs.461086	NM_004360	CDH1	Cadherin 1, type 1, E-cadherin (epithelial)
Hs.370771	NM_000389	CDKN1A	Cyclin-dependent kinase inhibitor 1A (p21, Cip1)
Hs.512599	NM_000077	CDKN2A	Cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)
Hs.72901	NM_004936	CDKN2B	Cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)
Hs.654393	NM_005225	E2F1	E2F transcription factor 1
Hs.181128	NM_005229	ELK1	ELK1, member of ETS oncogene family
Hs.208124	NM_000125	ESR1	Estrogen receptor 1
Hs.369438	NM_005238	ETS1	V-ets erythroblastosis virus E26 oncogene homolog 1 (avian)
Hs.728789	NM_005252	FOS	FBJ murine osteosarcoma viral oncogene homolog
Hs.396530	NM_000601	HGF	Hepatocyte growth factor (hepapoietin A; scatter factor)
Hs.37003	NM_005343	HRAS	V-Ha-ras Harvey rat sarcoma viral oncogene homolog
Hs.656213	NM_004972	JAK2	Janus kinase 2
Hs.479754	NM_000222	KIT	V-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
Hs.632486	NM_021960	MCL1	Myeloid cell leukemia sequence 1 (BCL2-related)
Hs.484551	NM_002392	MDM2	Mdm2 p53 binding protein homolog (mouse)
Hs.533432	NM_005372	MOS	V-mos Moloney murine sarcoma viral oncogene homolog
Hs.654446	NM_005375	MYB	V-myb myeloblastosis viral oncogene homolog (avian)
Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
Hs.25960	NM_005378	MYCN	V-myc myelocytomatosis viral related oncogene, neuroblastoma derived (avian)
Hs.113577	NM_000267	NF1	Neurofibromin 1
Hs.81328	NM_020529	NFKBIA	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
Hs.486502	NM_002524	NRAS	Neuroblastoma RAS viral (v-ras) oncogene homolog
Hs.175343	NM_002645	PIK3C2A	Phosphoinositide-3-kinase, class 2, alpha polypeptide
Hs.553498	NM_006218	PIK3CA	Phosphoinositide-3-kinase, catalytic, alpha polypeptide
Hs.526464	NM_033238	PML	Promyelocytic leukemia
Hs.531704	NM_002737	PRKCA	Protein kinase C, alpha
Hs.159130	NM_002880	RAF1	V-raf-1 murine leukemia viral oncogene homolog 1
Hs.654583	NM_000964	RARA	Retinoic acid receptor, alpha
Hs.476270	NM_007182	RASSF1	Ras association (RalGDS/AF-6) domain family member 1
Hs.408528	NM_000321	RB1	Retinoblastoma 1
Hs.631886	NM_002908	REL	V-rel reticuloendotheliosis viral oncogene homolog (avian)
Hs.350321	NM_020630	RET	Ret proto-oncogene
Hs.149261	NM_001754	RUNX1	Runt-related transcription factor 1
Hs.654444	NM_002961	S100A4	S100 calcium binding protein A4
Hs.55279	NM_002639	SERPINF5 Maspin	Serpin peptidase inhibitor, clade B (ovalbumin), member 5
Hs.515005	NM_000455	STK11	Serine/threonine kinase 11
Hs.370854	NM_000368	TSC1	Tuberous sclerosis 1
Hs.517792	NM_000551	VHL	Von Hippel-Lindau tumor suppressor
Hs.461453	NM_016373	WWOX	WW domain containing oxidoreductase
Hs.98493	NM_006297	XRCC1	X-ray repair complementing defective repair in Chinese hamster cells 1
Hs.471751	NM_020311	ACKR3	Chemokine (C-X-C motif) receptor 7

Hs.150749	NM_000633	BCL2	B-cell CLL/lymphoma 2
Hs.143961	NM_002988	CCL18	Chemokine (C-C motif) ligand 18 (pulmonary and activation-regulated)
Hs.75498	NM_004591	CCL20	Chemokine (C-C motif) ligand 20
Hs.534347	NM_002990	CCL22	Chemokine (C-C motif) ligand 22
Hs.75703	NM_002984	CCL4	Chemokine (C-C motif) ligand 4
Hs.514821	NM_002985	CCL5	Chemokine (C-C motif) ligand 5
Hs.705362	NM_001123396	CCR2	Chemokine (C-C motif) receptor 2
Hs.370036	NM_001838	CCR7	Chemokine (C-C motif) receptor 7
Hs.521989	NM_014143	CD274	CD274 molecule
Hs.1349	NM_000758	CSF2	Colony stimulating factor 2 (granulocyte-macrophage)
Hs.2233	NM_000759	CSF3	Colony stimulating factor 3 (granulocyte)
Hs.247824	NM_005214	CTLA4	Cytotoxic T-lymphocyte-associated protein 4
Hs.624	NM_000584	CXCL8	Chemokine (C-X-C motif) ligand 8 (IL8)
Hs.632586	NM_001565	CXCL10	Chemokine (C-X-C motif) ligand 10
Hs.522891	NM_000609	CXCL12	Chemokine (C-X-C motif) ligand 12
Hs.77367	NM_002416	CXCL9	Chemokine (C-X-C motif) ligand 9
Hs.846	NM_001557	CXCR2	Chemokine (C-X-C motif) receptor 2
Hs.605083	NM_005228	EGFR	Epidermal growth factor receptor
Hs.247700	NM_014009	FOXP3	Forkhead box P3
Hs.62661	NM_002053	GBP1	Guanylate binding protein 1, interferon-inducible
Hs.1051	NM_004131	GZMB	Granzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1)
Hs.719495	NM_001530	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
Hs.713441	NM_002116	HLA-A	Major histocompatibility complex, class I, A
Hs.77961	NM_002117	HLA-C	Major histocompatibility complex, class I, C
Hs.856	NM_000619	IFNG	Interferon, gamma
Hs.674	NM_002187	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
Hs.845	NM_002188	IL13	Interleukin 13
Hs.602618	NM_000585	IL15	Interleukin 15
Hs.1722	NM_000575	IL1A	Interleukin 1, alpha
Hs.591803	NM_016584	IL23A	Interleukin 23, alpha subunit p19
Hs.73917	NM_000589	IL4	Interleukin 4
Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)
Hs.407995	NM_002415	MIF	Macrophage migration inhibitory factor (glycosylation-inhibiting factor)
Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)
Hs.82116	NM_002468	MYD88	Myeloid differentiation primary response gene (88)
Hs.313	NM_000582	SPP1	Secreted phosphoprotein 1
Hs.519033	NM_003264	TLR2	Toll-like receptor 2
Hs.241570	NM_000594	TNF	Tumor necrosis factor
Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A

Table S2. PCR primers used for HPV genotyping and oncogenes integration detection.

Primer	Specificity	Sequence (5' to 3')
HPV16	F16E7	TCAGAGGAGGAGGATGAAATAGA
	R16E7	GCACAACCGAAGCGTAGA
	F16E6	AATGTTTCAGGACCCACAGG
	R16E6	GTTGCTTGCACTACACACATTC
HPV18	F18E1	CATTTTGTGAACAGGCAGAGC
	R18E1	ACTTGTGCATCATTGTGGACC
	F18E6	ACCCTACAAGCTACCTGATCT
	R18E6	ACCTCTGTAAGTTCCAATACTGTC
	F18E7	AATTCCGGTTGACCTTCTATGT
	R18E7	GGCTGGTAAATGTTGATGAT
HPV31	F31E6	ACGATTCCACAACATAGGAGGA
	R31E6	TACACTTGGGTTTCAGTACGAGGT
HPV33	F33L1	CGTCGCAGGCGTAAACG
	R33/etcl.1	ACAGGAGGCAGGTACAC
HPV35	F35E4	GCCTGCTCCGTGGGC
	R35E4	GCACTGAGTCGCACTCGC
HPV39	F39E7	CGAGCAATTAGGAGAGTCAGAGG
	R39E7	TGTGTGACGCTGTGGTTCAT
HPV45	F18E1	CATTTTGTGAACAGGCAGAGC
	R45E1	CAACACCTGTGCATCATTCTGA

HPV58	F58L1	GCGTCGCAGACGTAAACG
	R33/etcI.1	ACAGGAGGCAGGTACAC
HMBS	F HMBS	GCCTGCAGTTTGAAATCAGTG
	R HMBS	CGGGACGGGCTTTAGCTA
GAPDH	F GAPDH	GTATTGGGCGCCTGGTCACC
	R GAPDH	CGCTCCTGGAAGATGGTGATGG