**Table W1.** List of the 181 Reactivated Genes after 5Aza-dC Treatment Identified by RaSH cDNA Library.

| Sequence | Official Symbol | CpG Island | Spotted in Array |
|---|---|---|---|
| CV341138 | — | Yes | Yes |
| NM_000700 | *ANXA1* | No | Yes |
| NM_001008897 | *TCP1* | Yes | Yes |
| NM_002462 | *MX1* | Yes | Yes |
| NM_005562 | *LAMC2* | No | Yes |
| NM_005347 | *HSPA5* | Yes | Yes |
| NM_004509 | *SP110* | Yes | No |
| NM_005610 | *RBBP4* | Yes | Yes |
| NM_001001977 | *ATP5E* | Yes | Yes |
| NM_022073 | *EGLN3* | Yes | Yes |
| NM_006476 | *ATP5L* | Yes | Yes |
| NM_002893 | *RBBP7* | Yes | No |
| NM_001799 | *CDK7* | Yes | Yes |
| NM_016237 | *ANAPC5* | Yes | Yes |
| NM_002463 | *MX2* | Yes | Yes |
| NM_001852 | *COL9A2* | Yes | No |
| NM_022121 | *PERP* | Yes | Yes |
| NM_001012456 | *SEC61G* | Yes | Yes |
| NM_002535 | *OAS2* | Yes | No |
| NM_015013 | *AOF2* | Yes | Yes |
| NM_006135 | *CAPZA1* | Yes | Yes |
| NM_018835 | *RC3H2* | Yes | No |
| NM_144596 | *TTC8* | Yes | No |
| NM_002227 | *JAK1* | No | Yes |
| NM_014352 | *POU2F3* | Yes | Yes |
| NM_004923 | *MTL5* | Yes | Yes |
| NM_003406 | *YWHAZ* | Yes | Yes |
| NM_001007074 | *RPL32* | Yes | Yes |
| NM_033407 | *DOCK7* | Yes | No |
| NM_001686 | *ATP5B* | Yes | Yes |
| NM_017688 | *BSPRY* | Yes | Yes |
| NM_000979 | *RPL18* | Yes | No |
| NM_005056 | *JARID1A* | No | Yes |
| NM_020675 | *SPC25* | Yes | Yes |
| NM_004371 | *COPA* | Yes | No |
| NM_012420 | *IFIT5* | Yes | Yes |
| NM_019606 | *MEPCE* | Yes | Yes |
| NM_015091 | FAM179B | Yes | Yes |
| NM_014612 | *FAM120A* | Yes | No |
| NM_139266 | *STAT1* | Yes | Yes |
| NM_014969 | *WDR47* | Yes | Yes |
| NM_006004 | *UQCRH* | Yes | Yes |
| NM_006819 | *STIP1* | Yes | Yes |
| NM_004487 | *GOLGB1* | Yes | Yes |
| NM_002421 | *MMP1* | No | No |
| NM_006603 | *STAG2* | Yes | Yes |
| NM_015340 | *LARS2* | Yes | Yes |
| NM_000602 | *SERPINE1* | No | Yes |
| NM_198076 | *FAM36A* | Yes | Yes |
| NM_003746 | *DYNLL1* | Yes | Yes |
| NM_005782 | *THOC4* | Yes | Yes |
| NM_018660 | *ZNF395* | Yes | Yes |
| NM_003792 | *EDF1* | Yes | Yes |
| NM_005381 | *NCL* | Yes | Yes |
| NM_005762 | *TRIM28* | Yes | Yes |
| NM_002231 | *CD82* | Yes | Yes |
| NM_002797 | *PSMB5* | No | Yes |
| NM_001748 | *CAPN2* | Yes | No |
| NM_001009925 | *C20orf30* | Yes | Yes |
| NM_000646 | *AGL* | Yes | Yes |
| NM_183356 | *ASNS* | Yes | Yes |
| NM_005100 | *AKAP12* | Yes | Yes |
| NM_006421 | *ARFGEF1* | Yes | No |
| NM_198829 | *RAC1* | Yes | Yes |
| NM_006931 | *SLC2A3* | No | Yes |
| NM_000366 | *TPM1* | Yes | Yes |
| NM_005365 | *MAGEA9* | No | Yes |
| NM_006815 | *TMED2* | Yes | Yes |
| NM_022754 | *SFXN1* | Yes | Yes |
| NM_004755 | *RPS6KA5* | Yes | Yes |
| NM_015382 | *HECTD1* | Yes | No |
| NM_005243 | *EWSR1* | Yes | Yes |

**Table W1.** (*continued*)

| Sequence | Official Symbol | CpG Island | Spotted in Array |
|---|---|---|---|
| NM_004130 | *GYG1* | Yes | Yes |
| NM_153649 | *TPM3* | Yes | Yes |
| NM_021101 | *CLDN* | Yes | Yes |
| NM_006549 | *CAMKK2* | Yes | Yes |
| NM_001175 | *ARHGDIB* | No | Yes |
| NM_002673 | *PLXNB1* | Yes | Yes |
| NM_198147 | *LOC116236* | Yes | Yes |
| NM_014758 | *SNX19* | Yes | Yes |
| NM_016565 | *CHCHD8* | Yes | Yes |
| NM_020914 | *RNF213* | Yes | No |
| NM_000576 | *IL1B* | No | Yes |
| NM_005388 | *PDCL* | Yes | No |
| NM_001080 | *ALDH5A1* | Yes | Yes |
| NM_014611 | *MDN1* | Yes | No |
| NM_015509 | *NECAP1* | Yes | Yes |
| NM_003932 | *ST13* | Yes | Yes |
| NM_002274 | *KRT13* | No | Yes |
| NM_005789 | *PSME3* | Yes | Yes |
| NM_182972 | *IRF2BP2* | Yes | No |
| NM_004859 | *CLTC* | Yes | Yes |
| NM_133337 | *FER1L3* | Yes | Yes |
| NM_178868 | *CMTM8* | Yes | Yes |
| NM_018043 | *ANO1* | Yes | Yes |
| NM_003405 | *YWHAH* | Yes | Yes |
| NM_016816 | *OAS1* | Yes | Yes |
| NM_001457 | *FLNB* | Yes | Yes |
| NM_003670 | *BHLHB2* | Yes | Yes |
| NM_014014 | *ASCC3L1* | Yes | No |
| NM_002094 | *GSPT1* | Yes | No |
| NM_002080 | *GOT2* | Yes | Yes |
| NM_005113 | *GOLGA5* | Yes | Yes |
| NM_032547 | *SCOC* | Yes | Yes |
| NM_000526 | *KRT14* | No | No |
| NM_203459 | *CAMSAP1L* | Yes | Yes |
| NM_030920 | *ANP32E* | Yes | Yes |
| NM_015575 | GIGYF2 | Yes | Yes |
| NM_005744 | *ARIH1* | Yes | Yes |
| NM_032565 | *EBPL* | Yes | Yes |
| NM_177423 | *PPFIA1* | Yes | Yes |
| NM_000989 | *RPL30* | Yes | Yes |
| NM_014752 | *SPCS2* | Yes | Yes |
| NM_201517 | *H2AFV* | Yes | Yes |
| XM_031689 | — | Yes | Yes |
| NM_031430 | *RILP* | Yes | No |
| NM_213646 | *WARS* | Yes | No |
| NM_001975 | *ENO2* | Yes | No |
| NM_032940 | *POLR2C* | Yes | Yes |
| NM_032366 | *C16orf13* | Yes | Yes |
| NM_024881 | *SLC35E1* | Yes | Yes |
| NM_005389 | *PCMT1* | Yes | Yes |
| NM_020899 | *ZBTB4* | Yes | Yes |
| NM_002822 | *TWF1* | Yes | Yes |
| NM_016582 | *SLC15A3* | Yes | Yes |
| NM_016286 | *DCXR* | Yes | Yes |
| NM_001614 | *ACTG1* | Yes | Yes |
| NM_001878 | *CRABP2* | Yes | Yes |
| NM_144570 | *HN1L* | Yes | Yes |
| NM_002272 | *KRT4* | No | Yes |
| NM_001539 | *DNAJA1* | Yes | Yes |
| NM_018156 | *VPS13D* | Yes | Yes |
| NM_001005340 | *GPNMB* | Yes | Yes |
| NM_003039 | *SLC2A5* | Yes | Yes |
| NM_003467 | *CXCR4* | Yes | Yes |
| NM_000661 | *RPL9* | Yes | Yes |
| NM_014831 | *LBA1* | Yes | No |
| NM_017830 | *OCIAD1* | Yes | Yes |
| NM_007146 | *VEZF1* | Yes | Yes |
| NM_016091 | *EIF3EIP* | Yes | Yes |
| NM_001331 | *CTNND* | Yes | No |
| NM_013230 | *CD24* | Yes | Yes |
| NM_005556 | *KRT7* | Yes | Yes |
| NM_002211 | *ITGB1* | Yes | No |
| NM_031899 | *GORASP1* | Yes | Yes |

**Table W1.** (*continued*)

| Sequence | Official Symbol | CpG Island | Spotted in Array |
|---|---|---|---|
| NM_003972 | *BTAF1* | Yes | Yes |
| NM_016284 | *CNOT1* | Yes | Yes |
| NM_006362 | *NXF1* | Yes | Yes |
| NM_006018 | *GPR109B* | No | Yes |
| NM_181777 | *UBE2A* | Yes | Yes |
| NM_006306 | *SMC1A* | Yes | Yes |
| NM_013236 | *ATXN10* | Yes | Yes |
| NM_015384 | *NIPBL* | Yes | Yes |
| NM_002828 | *PTPN2* | Yes | No |
| NM_018127 | *ELAC2* | Yes | Yes |
| NM_002880 | *RAF1* | Yes | Yes |
| NM_001008493 | *ENAH* | Yes | Yes |
| NM_025137 | *SPG11* | Yes | Yes |
| BC038574 | — | Yes | Yes |
| NM_003376 | *VEGFA* | Yes | No |
| NM_001025 | *RPS23* | Yes | No |
| CV571660 | — | Yes | Yes |
| CV411881 | — | Yes | Yes |
| AL523333 | — | Yes | Yes |
| NM_005121 | *MED13* | Yes | Yes |
| NM_016072 | *GOLT1B* | Yes | Yes |
| NM_004966 | *HNRPF* | Yes | Yes |
| NM_015630 | *EPC2* | Yes | Yes |
| NM_001002857 | *ANXA2* | Yes | Yes |
| NM_016520 | *C9orf78* | Yes | Yes |
| NM_006472 | *TXNIP* | No | Yes |
| NM_003324 | *TULP3* | Yes | Yes |
| NM_201281 | *MTMR2* | Yes | Yes |
| NM_006796 | *AFG3L2* | Yes | Yes |
| NM_005358 | *LMO7* | Yes | Yes |
| BC027471 | — | Yes | Yes |
| BM685726 | — | Yes | Yes |
| NM_182926 | *KTN1* | Yes | Yes |
| NM_001087 | *AAMP* | Yes | Yes |
| NM_001008844 | *DSP* | Yes | Yes |
| AW105461 | — | Yes | Yes |

**Table W2.** Validation of Gene Expression Reactivation by qRT-PCR in 5Aza-dC–Treated HNSCC Cell Lines.

| Official Symbol | Cell Lines | | | |
|---|---|---|---|---|
| | FaDu | UM-SCC-14A | UM-SCC-17A | UM-SCC-38A |
| *AAMP* | 1.7 | 1.7 | ND | ND |
| *ACTG1* | ND | ND | 0.8 | 0.6 |
| *AFG3L2* | ND | ND | 1.0 | 0.5 |
| *ASNS* | ND | ND | 1.1 | 0.3 |
| *ATP5E* | 0.8 | 1.7 | 1.6 | ND |
| *ATXN10* | ND | ND | 0.9 | 0.4 |
| *CAPZA1* | ND | 2.5 | 1.7 | ND |
| *CLDN1* | 1.9 | 2.4 | ND | ND |
| *CRABP2* | 4.6 | 1.9 | 1.7 | 0.4 |
| *DCXR* | ND | ND | 1.3 | 1.1 |
| *EIF3EIP* | ND | ND | 1.0 | 0.8 |
| *EPC2* | 1.3 | ND | ND | 0.7 |
| *MEPCE* | 0.9 | ND | 1.5 | 1.7 |
| *GOT2* | 0.6 | 1.1 | ND | ND |
| *HNRPF* | ND | ND | 0.8 | 0.5 |
| *KTN1* | ND | ND | 1.2 | 2.7 |
| *MED13* | 1.3 | 1.8 | ND | ND |
| *MX1* | 22.4 | 4.5 | ND | 0.2 |
| *OCIAD1* | 1.1 | ND | 1.4 | 0.7 |
| *PCMT1* | 0.9 | ND | 1.2 | ND |
| *PERP* | 2.1 | 1.7 | ND | ND |
| *PLXNB1* | 1.8 | ND | ND | 0.3 |
| *PSME3* | ND | ND | 1.0 | 0.6 |
| *RAC1* | 1.3 | ND | 1.1 | ND |
| *RAF1* | ND | ND | 1.2 | 1.1 |
| *RPL30* | ND | 1.3 | 1.1 | 0.6 |
| *SFXN1* | 0.7 | ND | 1.3 | 0.6 |
| *SLC15A3* | 7.3 | 2.2 | 1.0 | 3.0 |
| *SPG11* | 1.0 | 2.0 | 1.0 | ND |
| *STAG2* | 1.4 | ND | 1.9 | 1.8 |
| *THOC4* | ND | ND | 0.8 | 0.8 |
| *TNRC15* | 0.8 | ND | ND | 0.7 |
| *UQCRH* | ND | 1.6 | 1.3 | ND |
| *WDR47* | 1.5 | ND | 1.6 | 0.4 |
| *YWHAH* | ND | ND | 0.9 | 1.0 |

*ND* indicates not determined.

**Table W3.** Distribution of the HNSCC Cases According to Demographic, Lifestyle, and Clinicopathological Variables.

| Variables | Category | TMA, *n* (%) | MSP, *n* (%) |
|---|---|---|---|
| Age | ≤53 | 14 (19.18) | 51 (36.43) |
| | >53 | 59 (80.82) | 89 (63.57) |
| Tumor site | Oral cavity | 23 (30.67) | 64 (45.71) |
| | Larynx | 31 (41.33) | 24 (17.14) |
| | Hypopharynx | 21 (28.00) | 52 (37.14) |
| Tumor size | T1 + T2 | 22 (33.85) | 34 (25.37) |
| | T3 + T4 | 43 (66.15) | 100 (74.63) |
| Lymph nodes | N0 | 8 (11.43) | 26 (19.40) |
| | N+ | 62 (88.57) | 108 (80.60) |
| Grade | 1 | 25 (34.24) | 36 (27.48) |
| | 2 | 41 (56.16) | 77 (58.78) |
| | 3 | 7 (9.60) | 18 (13.74) |
| Vascular invasion | No | 57 (79.17) | 115 (86.47) |
| | Yes | 15 (20.83) | 18 (13.53) |
| Lymphatic permeation | No | 46 (63.89) | 87 (64.93) |
| | Yes | 26 (36.11) | 47 (35.07) |
| Perineural infiltration | No | 40 (55.56) | 69 (51.88) |
| | Yes | 32 (44.44) | 64 (48.12) |

**Table W4.** Sequence and Concentration of the Primer Pairs Used in the qRT-PCR Validation of Gene Induction.

| Official Symbol | Sense | Sequence (5′ → 3′) | μM |
|---|---|---|---|
| *AAMP* | Forward | CACCTTTGCATTGCACTCAG | 0.4 |
| | Reverse | TATGGCCTGCACACTCAAAG | |
| *ACTG1* | Forward | AGCCTTCCTTCCTGGGTATG | 0.5 |
| | Reverse | TGTTGGCGTACAGGTCTTTG | |
| *AFG3L2* | Forward | ACGAGGTGGCAAGAAAGATG | 0.4 |
| | Reverse | ATGACTCCACCCCAGAACAG | |
| *ASNS* | Forward | AAGACAGCCCCGATTTACTG | 0.5 |
| | Reverse | AGAGCCTGAATGCCTTCCTC | |
| *ATP5E* | Forward | TGGCAGCAACGTAAAAATTG | 0.4 |
| | Reverse | ACATGTGCCCACACATCTTC | |
| *ATXN10* | Forward | GCGAGTGGAACAGGAATCTC | 0.5 |
| | Reverse | AGTTCTGGGAAAGCATGCAC | |
| *CAPZA1* | Forward | TCGGATGAGGAGAAGGTACG | 0.5 |
| | Reverse | CCCTTCCCTGAGGAGATTG | |
| *CLDN1* | Forward | GGTGCAGAAGATGAGGATGG | 0.4 |
| | Reverse | CATTGACTGGGGTCATAGGG | |
| *CRABP2* | Forward | GACCTCGTGGACCAGAGAACTG | 0.4 |
| | Reverse | CCTGGTGCACACAACGTCAT | |
| *DCXR* | Forward | GGCCTTTGACAGATCCTTTG | 0.5 |
| | Reverse | AGCACTGGCTGGAGACATTC | |
| *EIF3EIP* | Forward | ACTACCAGGCCATCAAGGTG | 0.5 |
| | Reverse | GATGGCATCCTGGTAACGAC | |
| *EPC2* | Forward | GCAAGGACATGCCTGATCTC | 0.4 |
| | Reverse | TTGCTGTGCTGAAATTGCTC | |
| *GOT2* | Forward | AATGTTTGCCTCTGCCAATC | 0.4 |
| | Reverse | CATCCGCATCTTTGCAGAC | |
| *HNRPF* | Forward | GCCTGGTAGCAACAGAAACC | 0.5 |
| | Reverse | CAGGTGATCTTGGGTGTGG | |
| *KTN1* | Forward | GTTTCCCCAGAAACGGAGTC | 0.5 |
| | Reverse | TGTGAGCTGTTGGTTTACCG | |
| *MED13* | Forward | TGAAGAGCATATCACCCTTGC | 0.4 |
| | Reverse | TTGAATGCCTGTCCTGTGAG | |
| *MEPCE* | Forward | CAACCCTGGTCGTCGTATG | 0.4 |
| | Reverse | CTGGCTTCAATTGGATTCG | |
| *MX1* | Forward | CAATCAGCCTGCTGACATTG | 0.4 |
| | Reverse | TGTCTCCTGCCTCTGGATG | |
| *OCIAD1* | Forward | GAATGGGAGGGCTGATTTTC | 0.4 |
| | Reverse | TGCATTCTGCGAAGACTCTC | |
| *PCMT1* | Forward | CTACAGACCGCTCCCACTATG | 0.6 |
| | Reverse | GGAGCACTGATTGTTGCTTG | |
| *PERP* | Forward | TACGAGGAGGGCTGTCAGAG | 0.4 |
| | Reverse | GGCGAAGAAGGAGAGGATG | |
| *PLXNB1* | Forward | TGGTTGCAAGCCATCAGAG | 0.4 |
| | Reverse | CTCTTGCAGGAGGGTCTGG | |
| *PSME3* | Forward | CCAAGGAACCAAGGTGTTTG | 0.5 |
| | Reverse | TGGGAATCAGGAGCTGTACC | |
| *RAC1* | Forward | TGCTTTTCCCTTGTGAGTCC | 0.4 |
| | Reverse | ATGGGAGTGTTGGGACAGTG | |
| *RAF1* | Forward | GCCGAACAAGCAAAGAACAG | 0.5 |
| | Reverse | AACACTGCACAGCACTCTGG | |
| *RPL30* | Forward | CCTGGGGTACAAGCAGACTC | 0.4 |
| | Reverse | TGATGGACACCAGTTTTAGCC | |
| *SFXN1* | Forward | GCAAGTTGTCGTGTCCAGGATT | 0.6 |
| | Reverse | TTCCAAAGTGTTCATAATGAATGG | |
| *SLC15A3* | Forward | AAGCTCGCTCTCCAAAACTG | 0.4 |
| | Reverse | GCACATTGACGGTCTCTGG | |
| *SPG11* | Forward | TCTCCCCAGGATAAGTCCAG | 0.4 |
| | Reverse | GAGGGCTTCAGGGGAATATG | |
| *STAG2* | Forward | AAACCAAAAGCAAGGCAAAG | 0.4 |
| | Reverse | GGTTTTCCTCCTCCATTTCC | |
| *THOC4* | Forward | CTCAGACGCCGATATTCAGG | 0.5 |
| | Reverse | CTCAAAGTGCACGTCTGCTG | |
| *TNRC15* | Forward | CTCCAGGAGGAACCCCTTC | 0.6 |
| | Reverse | TCCTCCTCGTCCTGTCAATC | |
| *UQCRH* | Forward | CGGAGGAGCTCTTTGACTTC | 0.5 |
| | Reverse | TGCCCAGATGATGAAGACTG | |
| *WDR47* | Forward | CCAGGGGTACAAAACCTCAG | 0.4 |
| | Reverse | GATAGGCCTCTGTGCATCAAC | |
| *YWHAH* | Forward | GCGGTGACAGAGCTGAATG | 0.5 |
| | Reverse | TGGTTTTCTGCTCAATGCTG | |