| Transcript Cluster ID | Normal cervix | CIN3 | SCC | FC | ANOVA p-value | Transcript ID | Accession | Sequence Length | Sequence |
|-----------------------|---------------|-----|-----|----|---------------|---------------|----------|----------------|----------|
| 20500132  | 5.84       | 5.7   | 6.97  | 2.411615655 | 0.011473 | hasa-miR-18a-5p | MIMAT0000072 | 23 | UAAGGUAGCUAGCUAGCVAGAG |
| 20500133  | 2.54       | 2.63   | 4.11  | 2.969047141 | 0.00958 | hasa-miR-18a-3p | MIMAT0002891 | 23 | ACUGCCCUAAGCUAGCUCCUAGG |
| 20500142  | 3.63       | 4.51   | 5.47  | 3.580100284 | 0.002311 | hasa-miR-21-3p | MIMAT0004494 | 21 | CAACACCAGCAGCAUGGUGGCU |
| 20500145  | 4.56       | 4.65   | 5.75  | 2.281527432 | 0.010072 | hasa-miR-23a-5p | MIMAT0004496 | 22 | GGAGGUAGCUAGCUAGCUAGG |
| 20500150  | 3.72       | 4.42   | 5.32  | 3.031433133 | 0.000513 | hasa-miR-25-5p | MIMAT0004498 | 21 | AGGGCGAGACUGGCAAGG |
| 20500156  | 2.51       | 3.86   | 5.64  | 8.75434961 | 0.000411 | hasa-miR-27a-5p | MIMAT0004501 | 22 | AGGGCUAGCUAGCUAGCUAGCA |
| 20500170  | 1.27       | 2.6    | 4.22  | 7.727490631 | 0.000473 | hasa-miR-92a-1-5p | MIMAT0004507 | 23 | AGGUGGUAAGCUAGCUAGCUAGC |
| 20500174  | 4.83       | 4.79   | 5.87  | 2.114036081 | 0.023707 | hasa-miR-93-3p | MIMAT0004509 | 22 | ACUGCUAGCUAGCUAGCUAGCC |
| 20500181  | 11.73      | 11.29  | 9.42  | 4.9588308 | 0.006134 | hasa-miR-99a-5p | MIMAT0000097 | 22 | AACCAGUAGACAGCAUGUAG |
| 20500183  | 10.45      | 10.45  | 8.66  | 3.458148925 | 0.047895 | hasa-miR-100-5p | MIMAT000098 | 22 | AACCAGUAGACAGCAUGUAG |
| 20500393  | 1.54       | 1.28   | 5.53  | 19.02731384 | 0.00429 | hasa-miR-196a-5p | MIMAT000226 | 22 | UAGGUAAGGUAGCUAGGUAG |
| 20500400  | 10.32      | 10.76  | 9.28  | 2.789487333 | 0.012829 | hasa-miR-199a-3p | MIMAT000232 | 22 | ACAGUAAGCUAGCAAGCUAGG |
| 20500438  | 7.28       | 8.24   | 6.04  | 4.59794392 | 0.019024 | hasa-miR-10a-5p | MIMAT000253 | 23 | UACCGUAGACAGCAUGUAG |
| 20500450  | 8.22       | 8.53   | 9.25  | 2.402024251 | 0.038977 | hasa-miR-183-5p | MIMAT000259 | 24 | UAGACGACAGCAUGUAG |
| 20500452  | 4.59       | 5.97   | 6.62  | 4.084048503 | 0.009666 | hasa-miR-183-5p | MIMAT000261 | 22 | UAGGACGACGUAGCAUGUACAC |
| 20500453  | 1.11       | 1.71   | 3.26  | 4.438277888 | 0.010949 | hasa-miR-183-3p | MIMAT0004560 | 22 | GUGAAUUACCCGAGGCAAGG |
| 20500457  | 4.69       | 4.65   | 1.86  | 7.110741449 | 0.034627 | hasa-miR-199b-5p | MIMAT000263 | 23 | CCCAGUAGCUAGCAUGUAGC |
| 20500458  | 10.32      | 10.76  | 9.28  | 2.789487333 | 0.012829 | hasa-miR-199b-3p | MIMAT0004563 | 22 | ACAGUAAGCUAGCAAGCUAGG |
| 20500463  | 0.91       | 0.85   | 2.67  | 3.530811985 | 0.031006 | hasa-miR-205-3p | MIMAT0009197 | 21 | GAAGUAAGGUAGAGUAAGUAG |
| 20500489  | 4.6        | 5.63   | 6.55  | 3.863745316 | 0.029366 | hasa-miR-224-5p | MIMAT000281 | 21 | CAAGUCAGUAGGUAGGUAG |
| 20500555  | 6.25       | 7.91   | 7.46  | 3.160165247 | 0.029931 | hasa-miR-200b-5p | MIMAT0004571 | 22 | UACUUCAGGCAAGUGUAG |
| 20500556  | 7.5        | 9.13   | 8.4   | 3.095129987 | 0.046326 | hasa-miR-200b-3p | MIMAT000318 | 22 | UACUUCAGGCAAGUGUAG |
| 20500722  | 4.01       | 5.01   | 5.77  | 3.36981249 | 0.003796 | hasa-miR-27b-5p | MIMAT0004588 | 22 | AGGACUAGACGUAGGUAG |
| 20500730  | 12.58      | 12.57  | 11.15 | 2.694467154 | 0.003039 | hasa-miR-125b-5p | MIMAT000423 | 22 | UACCGUAGACCUAGCUAG |
| 20500784  | 3.37       | 3.18   | 0.76  | 6.105036836 | 0.002713 | hasa-miR-154-5p | MIMAT000452 | 22 | UAGGUAAGCUAGGUAGCUAG |
| 20500798  | 10.68      | 10.9   | 8.87  | 4.084048503 | 0.000612 | hasa-miR-195-5p | MIMAT000461 | 21 | UAGACGACGACAAAAAAGUAG |
| 20501159  | 3.14       | 2.49   | 1.55  | 3.010493495 | 0.048142 | hasa-miR-29c-5p | MIMAT0004673 | 22 | UACGGCAAGUACGCUAGG |
| 20501172  | 1.08       | 1.98   | 0.64  | 2.531513188 | 0.024299 | hasa-miR-299-5p | MIMAT0002890 | 22 | UAGGUAAGCUAGCUAG |
| 20501224  | 4.76       | 4.67   | 2.05  | 6.543216468 | 0.0358 | hasa-miR-376c-3p | MIMAT000720 | 21 | AACAUAGAGAAUAACGCAAG |

Supplementary Table 1. Differently expressed miRNAs in normal cervix, CIN3 and SCC tissues.
| accession | log2fold | fold | p-value | Hsa-miR | MIMAT0000736 AT0000736 22 UAUACAAGGCAAGCCUCUCUGU |
|-----------|----------|------|---------|---------|---------------------------------------------------|
| hsa-miR-381-3p | 2.94 | 2.76 | 1.08 | 3.63 | 0.038799 |
| hsa-miR-337-5p | 4.72 | 3.77 | 2.02 | 6.49 | 0.032777 |
| hsa-miR-424-5p | 2.8 | 3.54 | 1.19 | 5.02 | 0.006824 |
| hsa-miR-18b-5p | 1.79 | 2.34 | 3.9 | 4.31 | 0.001094 |
| hsa-miR-433-3p | 2.6 | 3.96 | 1.19 | 6.82 | 0.010122 |
| hsa-miR-494-3p | 8.1 | 7.73 | 7.09 | 2.01 | 0.021848 |
| hsa-miR-501-5p | 1.93 | 2.83 | 3.25 | 2.49 | 0.025726 |
| hsa-miR-550a-3p | 0.82 | 1.61 | 2.03 | 2.31 | 0.038855 |
| hsa-miR-612 | 0.33 | 0.41 | 1.82 | 2.80 | 0.006142 |
| hsa-miR-615-3p | 5.89 | 3.7 | 1.12 | 27.28 | 0.040973 |
| hsa-miR-617 | 1.49 | 2.72 | 2.37 | 2.34 | 0.013819 |
| hsa-miR-637 | 1.14 | 2.22 | 2.38 | 2.36 | 0.004941 |
| hsa-miR-654-3p | 4.11 | 3.9 | 1.48 | 6.19 | 0.007056 |
| hsa-miR-542-5p | 2.03 | 3.01 | 0.72 | 4.89 | 0.045974 |
| hsa-miR-550a-3-5p | 2.06 | 3.06 | 3.26 | 2.97 | 0.005967 |
| hsa-miR-550a-3p | 0.96 | 2.6 | 0.75 | 6.45 | 0.074865 |
| hsa-miR-617 | 3.41 | 4.67 | 4.58 | 2.34 | 0.016407 |
| hsa-miR-619 | 1.18 | 1.73 | 4.73 | 11.72 | 0.001508 |
| hsa-miR-652-5p | 7.1 | 7.75 | 8.8 | 3.24 | 0.009619 |
| hsa-miR-652-5p | 1.92 | 2.64 | 3.04 | 2.17 | 0.000435 |
| hsa-miR-652-5p | 1.77 | 2.06 | 0.44 | 3.07 | 0.027465 |
| hsa-miR-654-3p | 0.97 | 2.3 | 2.01 | 2.51 | 0.010508 |
| hsa-miR-3178 | 8.5 | 9.48 | 9.68 | 2.26 | 0.002746 |
| hsa-miR-3180-3p | 5.38 | 6.39 | 6.43 | 2.07 | 0.010024 |
| hsa-miR-3180-3p | 3.09 | 4.01 | 4.11 | 2.02 | 0.013168 |
| hsa-miR-3180-3p | 0.49 | 1.87 | 1.52 | 2.60 | 0.005233 |
| hsa-miR-3180-3p | 6.53 | 7.32 | 7.99 | 2.75 | 0.027877 |
| hsa-miR-3180-3p | 2.25 | 3.33 | 3.48 | 2.34 | 0.005343 |
| hsa-miR-3180-3p | 5 | 5.67 | 6.23 | 2.34 | 0.008639 |
| hsa-miR-3180-3p | 4.9 | 6.64 | 6.45 | 3.34 | 0.038644 |
| hsa-miR-4417 | 6.23 | 6.88 | 7.36 | 2.18 | 0.029035 |
| Transcript Cluster ID | Transcript Cluster Name | Column A | Column B | Column C | Column D | Column E | Column F | Column G | Column H | Column I | Column J |
|----------------------|-------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 20518844             | hsa-miR-4462            | 5.67    | 5.57    | 4.42    | 2.37841423 | 0.046067 | MIMAT0018986 | 23 | UGACACGGAGGUGCUUGGGAA |
| 20518919             | hsa-miR-4521            | 4.91    | 4.76    | 6.43    | 3.182145935 | 0.006492 | MIMAT0019058 | 22 | GCUAAGGAAGUCCUGUCUCAG |
| 20519573             | hsa-miR-4730            | 3.83    | 4.97    | 4.7    | 2.203810232 | 0.030294 | MIMAT0019852 | 23 | CUGCCGAGGCCCCAUUCAUGCA |
| 20519588             | hsa-miR-4738-3p         | 2.33    | 3.82    | 3.77    | 2.808889751 | 0.025629 | MIMAT0019867 | 22 | UGAAACUGAGGCUGCAGGAGGA |
| 20519670             | hsa-miR-4783-3p         | 1.75    | 3.22    | 3.29    | 2.907945035 | 0.000201 | MIMAT0019947 | 23 | CCCCCGGUGUUGGGCUGGCUGC |
| 20525414             | hsa-miR-6726-5p         | 3.44    | 4.6     | 4.86    | 2.67585511 | 0.024649 | MIMAT0027353 | 21 | CGGGAGCUGGGGUCUGCCAGGU |
| 20525432             | hsa-miR-6735-5p         | 2.51    | 3.88    | 3.39    | 2.58405661 | 0.016537 | MIMAT0027371 | 25 | CAGGGGAGAAGGGACAGAAUCUGA |
| 20525442             | hsa-miR-6740-5p         | 1.59    | 2.64    | 2.46    | 2.070529848 | 0.046065 | MIMAT0027381 | 22 | AGUUUGGAAGGAGAGAGAGGA |
| 20525509             | hsa-miR-6774-5p         | 3.47    | 4.56    | 4.55    | 2.128740365 | 0.001692 | MIMAT0027448 | 25 | ACUUGGGGAGGAGGACCCUGUAG |
| 20525611             | hsa-miR-6825-5p         | 2.01    | 3.57    | 2.92    | 2.948538435 | 0.039101 | MIMAT0027550 | 22 | UGGGGGAGGUGGGAGACUGCAU |
| 20525633             | hsa-miR-6780b-5p        | 4.46    | 5.12    | 5.77    | 2.4794154 | 0.005709 | MIMAT0027572 | 23 | UGGGGGAAGGCUUGGCAGGGAAGA |
| 20525653             | hsa-miR-6846-5p         | 3.21    | 4.59    | 4.44    | 2.602683711 | 0.010016 | MIMAT0027592 | 22 | UGGGGGUCUGAUGGGGUAGAGU |
| 20525701             | hsa-miR-6870-5p         | 3.9     | 4.71    | 5.08    | 2.265767771 | 0.017735 | MIMAT0027640 | 19 | UGGGGGAAGGCUUGGGUAGUA |
| 20525731             | hsa-miR-6885-5p         | 1.13    | 2.26    | 2.16    | 2.188587403 | 0.044783 | MIMAT0027670 | 25 | AGGGGGGCACUGGCAAGCAAAC |
| 20526180             | hsa-miR-7111-5p         | 3.94    | 5.03    | 4.71    | 2.128740365 | 0.024455 | MIMAT0028119 | 22 | UGGGGGAGGGAAGGACAGCCAUA |
| 20526182             | hsa-miR-7112-5p         | 2.29    | 3.45    | 3.64    | 2.549121255 | 0.014317 | MIMAT0028121 | 22 | ACUGCCAGGCAUGCCCCUAG |

# Fold Change cut-off: 2.0  
# P-value cut-off: 0.05  
# Conditions: cervical cancer (SCC)_vs_CIN3_vs_Normal cervix  
# Column A: Transcript Cluster ID, it represents transcript cluster name.  
# Column B - D: Bi-weight Avg Signal (log2), Normalized Intensity of each group (averaged normalized intensities of each group, log2 transformed)  
# Column E: FC, the absolute ratio (no log scale) of normalized intensities between three conditions.  
# Column F: ANOVA P value (All Conditions), P value calculated from the student's t-test.  
# Column G: Transcript ID (Array Design).  
# Column H: Accession.  
# Column I: Sequence Length.  
# Column J: Sequence from miRBase.