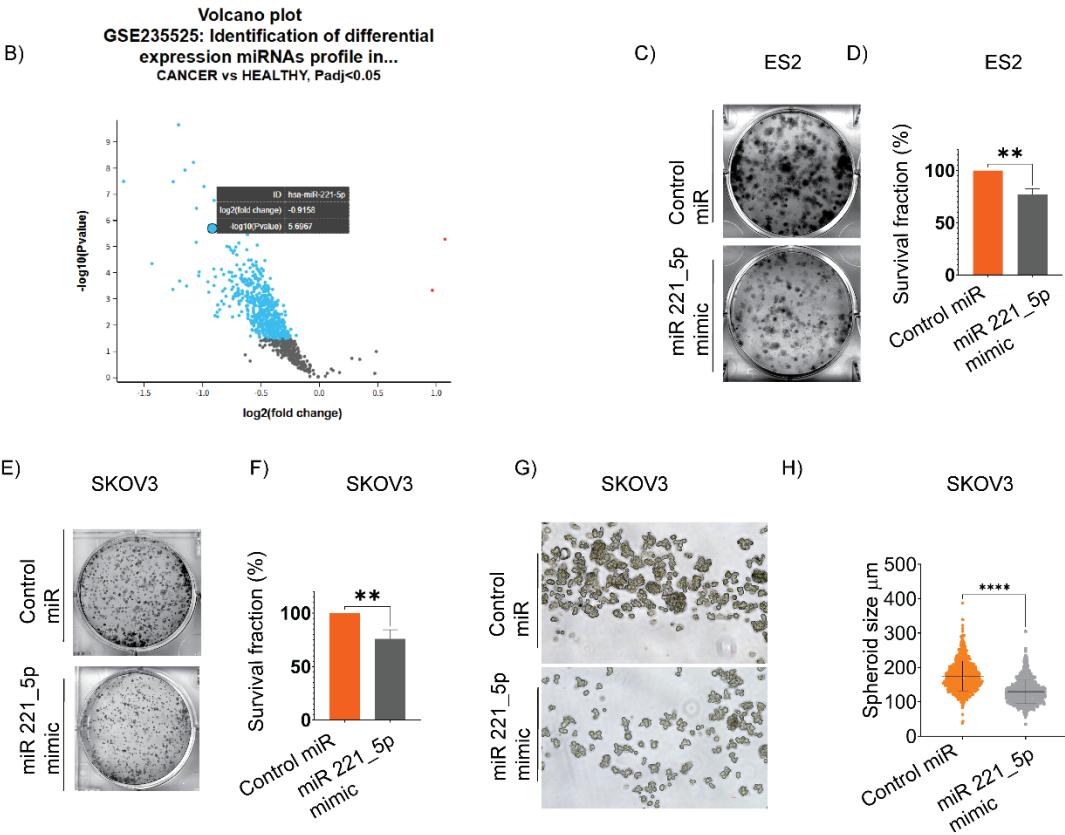
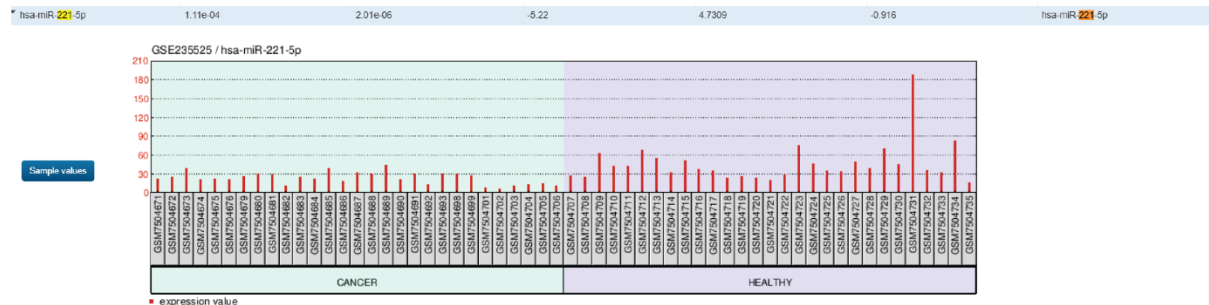


SUPPLEMENATRY FIGURE LEGENDS

Supplementary Figure 1. miR-221-5p is markedly downregulated in ovarian cancer patients and cell lines, and its restoration suppresses OC cell clonogenic potential and spheroid growth.

A)



(A) Re-analysis of the GEO dataset GSE235525 comparing serum miRNA expression profiles from HGSOc patients (Cancer) versus healthy controls (Healthy). Bars represent individual

sample expression values of *hsa-miR-221-5p* (red) ($\log_2$ fold change ≈ -5.22 ; adjusted $P = 1.1 \times 10^{-4}$).

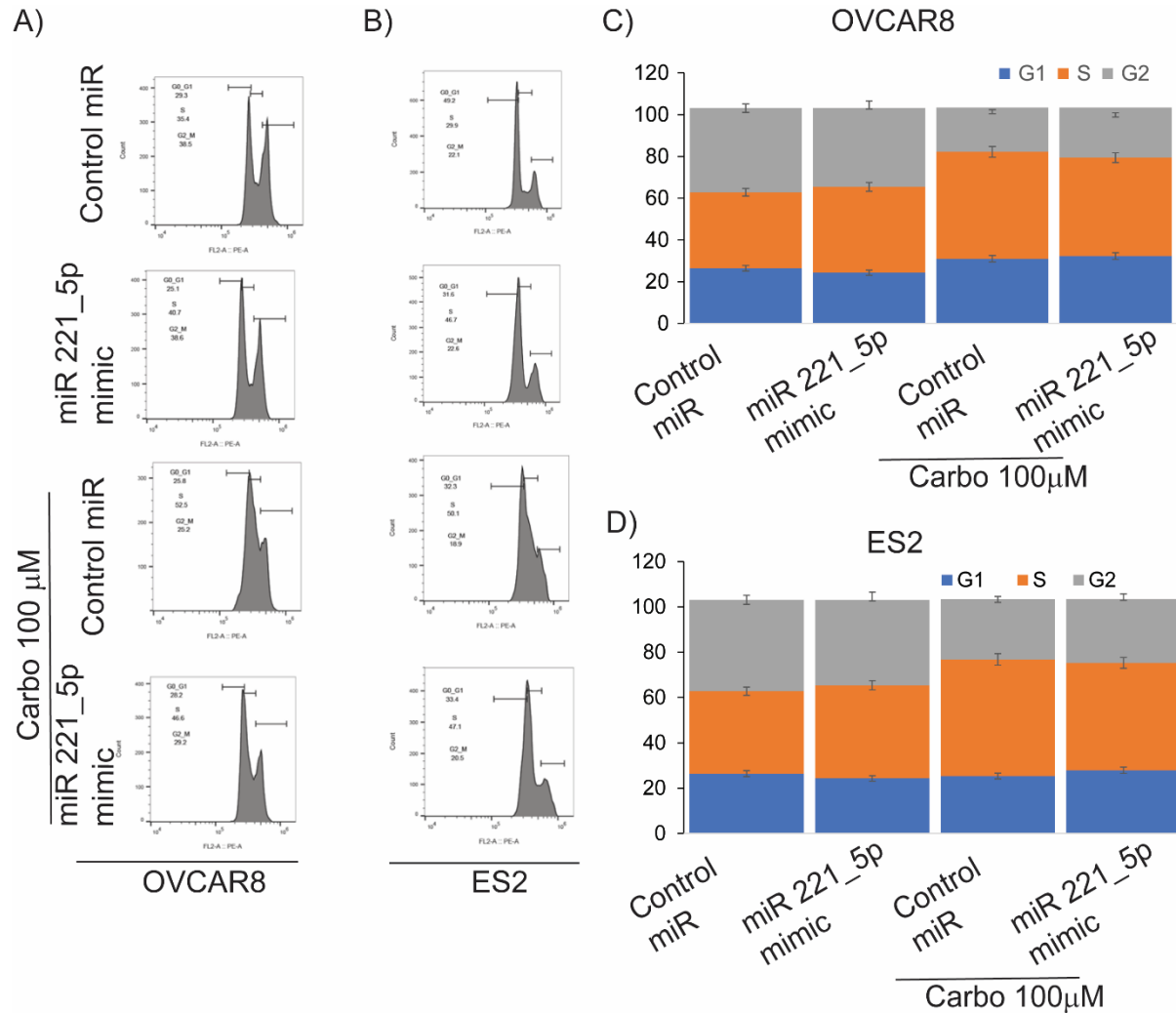
(B) Volcano plot illustrates differentially expressed miRNAs in the GSE235525 cohort (cancer vs. healthy). Each point denotes a miRNA; blue points indicate significantly downregulated miRNAs, while red points indicate significantly upregulated miRNAs. The position of miRNA-221-5p is indicated ($P < 0.05$).

Representative images (C) and quantitative survival fraction analysis (D) of low-density colony formation assays in ES2 cells 10 days post-transfection with control miRNA or miR-221-5p mimics. Data presented is mean $\pm$ SD of three independent experiments (** $P < 0.01$; mean $\pm$ SD). (** $P < 0.01$; mean $\pm$ SD).

Representative images (E) and quantitative survival fraction analysis (F) of clonogenic assays in SKOV3 cells following miR-221-5p restoration (** $P < 0.01$; $n = 3$).

Representative images (G) and quantitative violin plots (H) of 3D spheroid cultures of SKOV3 cells transfected with Control miR or miR-221-5P mimic. Data presented represents mean $\pm$ SD of three independent experiments. Spheroids bigger than 50 μm were calculated for plotting. (**** $P < 0.0001$).

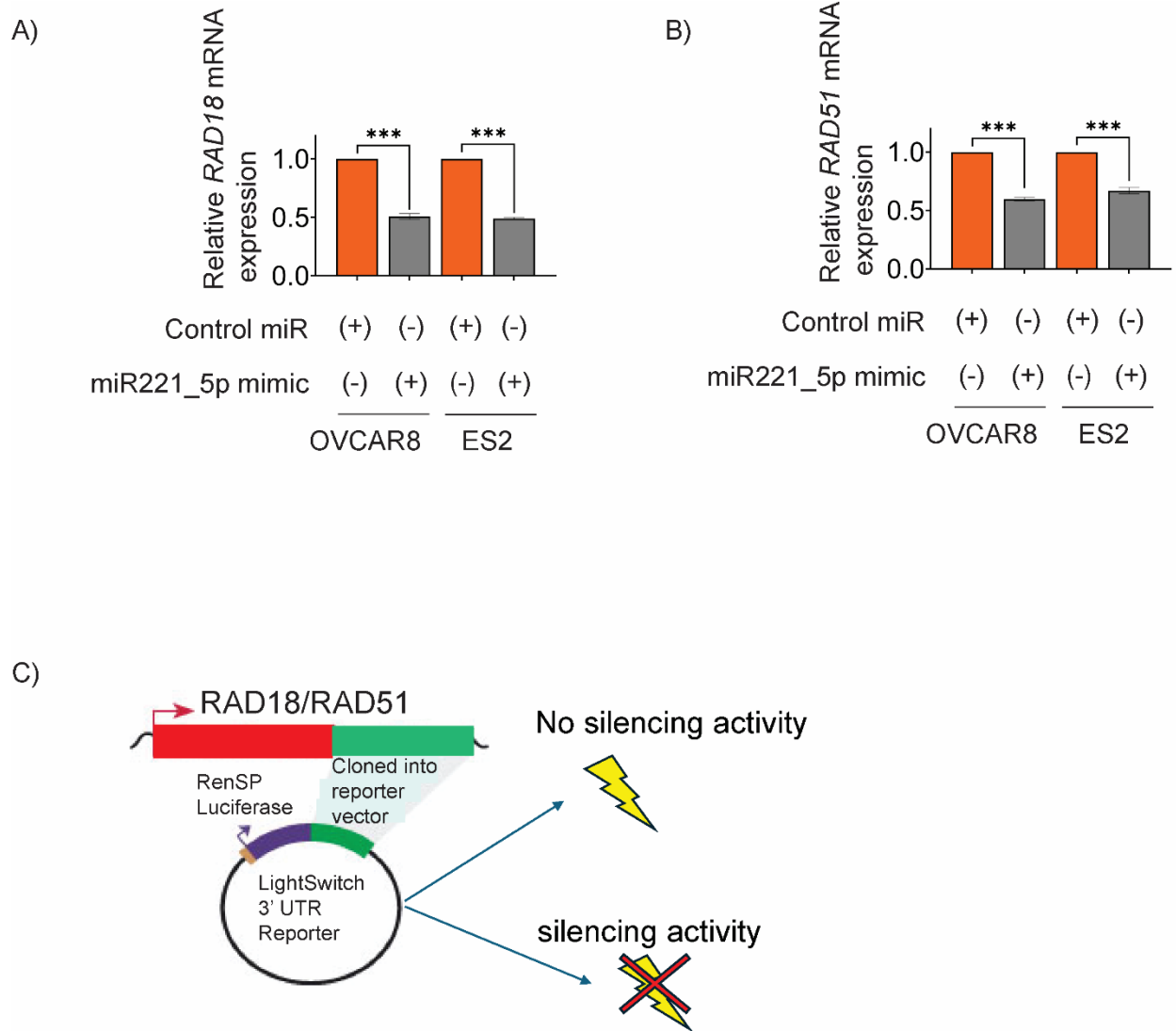
Supplementary Figure 2. miR-221-5p restoration does not alter cell-cycle distribution.



Representative flow cytometric profile of OVCAR8 (A) and ES2 (B) cells following propidium iodide (PI) staining. Cells were transfected with Control miR or miR-221-5P mimics and, where indicated, treated with carboplatin (100 μ M) for 24 h. Histograms display the DNA content and the resulting distribution of cells across the G₀/G₁, S and G₂/M phases of the cell cycle.

Quantitative analysis of the cell cycle distributions in OVCAR8 (C) and ES2 (D) cells 48 h post-transfection. Data represents the percentage of the total population of each phase. Data are presented as the mean $\pm$ SD of three independent biological replicates. Statistical analysis was performed using a two-tailed Student's t-test (ns: non-significant).

Supplementary Figure 3. miR-221-5p mimic depletes RAD18 and RAD51 transcripts and validates 3'-UTR reporter mechanism.

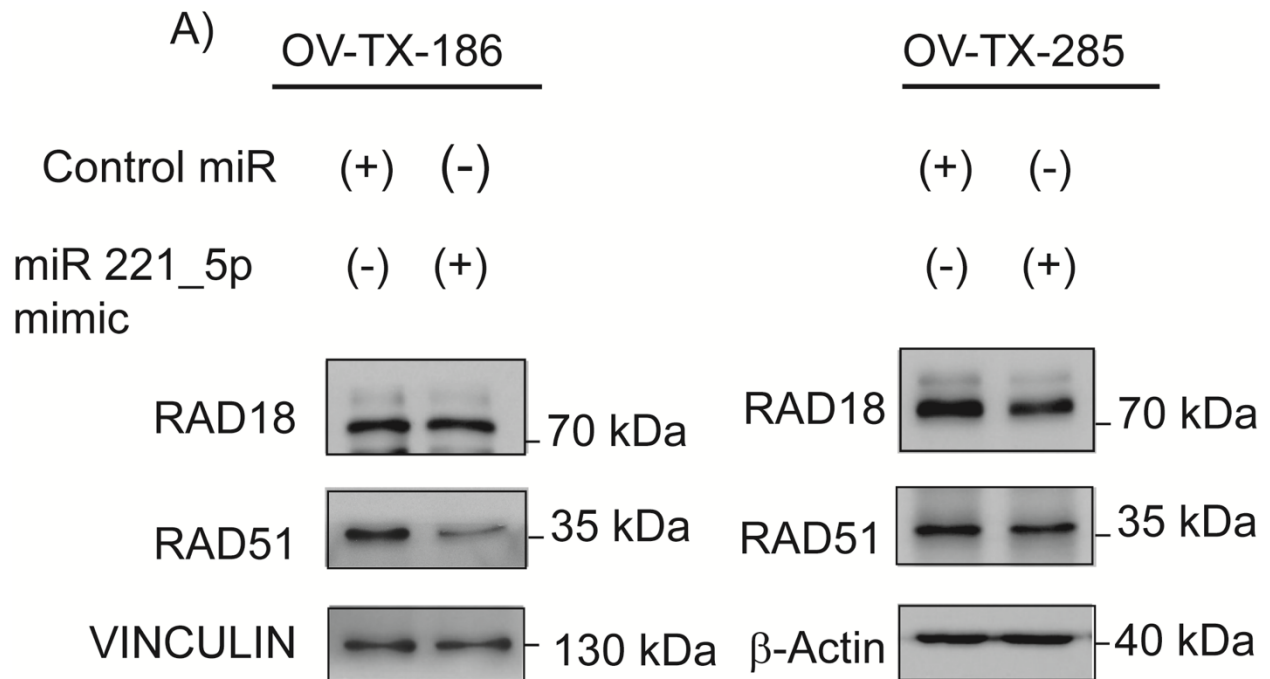


Quantitative RT-PCR analysis of *RAD18* (A) and *RAD51* (B) mRNA levels in OVCAR8 and ES2 cells 24 h post-transfection with Control miR or miR-221-5P mimics. Transcript levels were normalized to *GAPDH*. Data represent mean $\pm$ SD of three independent experiments. (***) $P < 0.001$, two-tailed *t*-test).

(C) Schematic representation of the LightSwitch 3'-UTR luciferase reporter assay strategy used to validate direct targeting engagement. The wildtype 3'-UTR of *RAD18* and *RAD51* were cloned downstream of the RenSP luciferase reporter gene. In the absence of miR-221-5p (Control), high luciferase activity is maintained ("no silencing activity"). Upon miR-221-5p binding to its

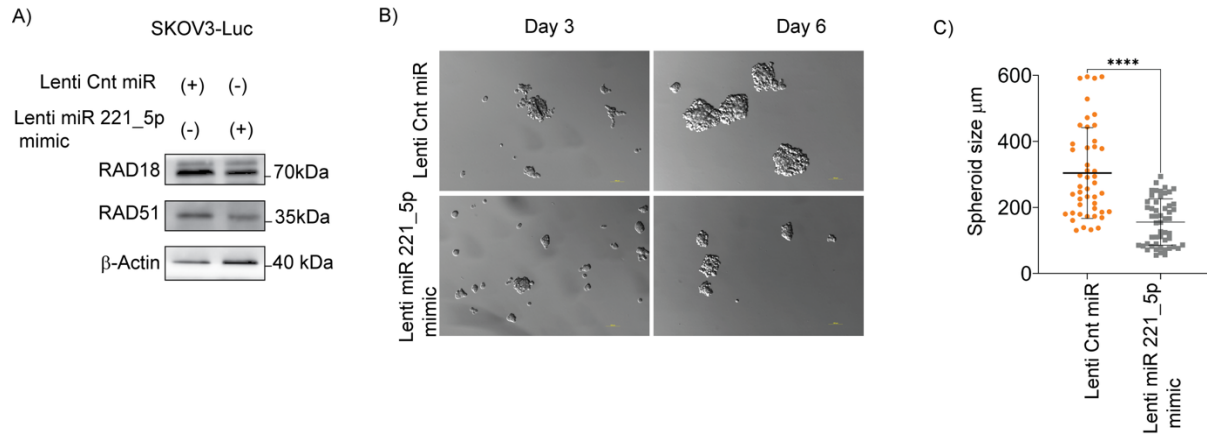
complementary seed sites within 3'UTR, luciferase expression is suppressed ("silencing activity"). This mechanistic framework serves as the basis for the dual-luciferase results shown in Figure 2.

Supplementary Figure 4. miR-221-5p restoration depletes RAD18 and RAD51 in primary patient-derived OC cells.



(A) Immuno blot analysis of RAD18 and RAD51 expression in two primary patient-derived ovarian cancer cell lines, OV-TX-186 and OV-TX-285, 48 h post-transfection with Control miR or miR-221-5P mimics. β -Actin and vinculin were used as loading controls to ensure equal protein distribution across lanes.

Supplementary Figure 5. Stable miR-221-5p expression suppresses RAD18/RAD51 and attenuates 3D spheroid growth in SKOV3-Luc cells.

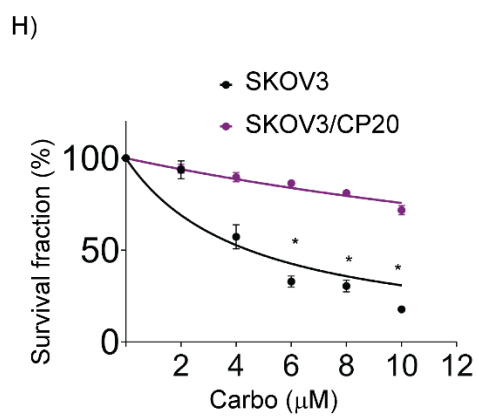
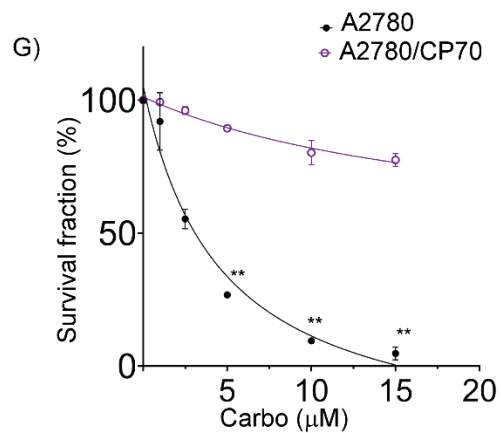
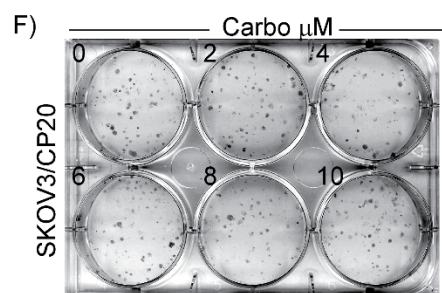
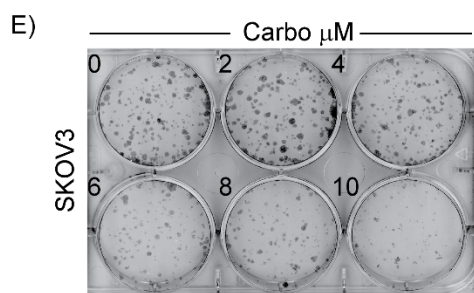
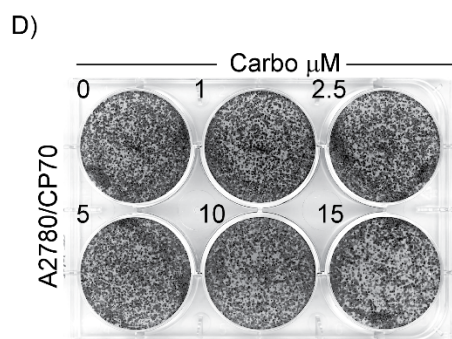
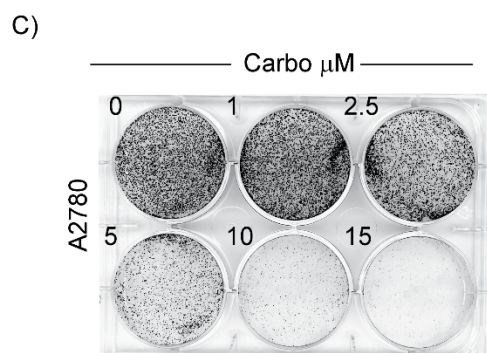
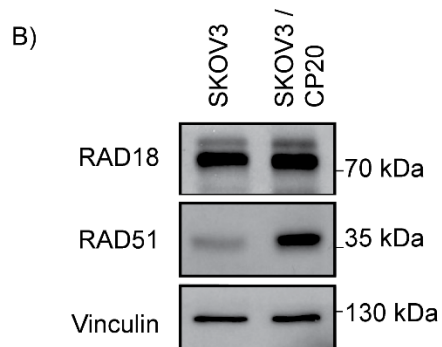
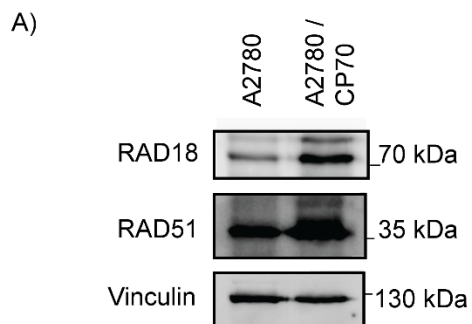


(A) Immunoblot analysis of RAD18 and RAD51 in SKOV3-Luc cells stably transduced with a control lentiviral miRNA (Lenti-Ctrl-miR) or a miR-221-5p mimic. β -Actin serves as a loading control.

(B) Representative brightfield images of 3D spheroids generated from SKOV3-Luc cells expressing control or miR-221-5p lentiviral constructs. Images illustrate the reduction in spheroid assembly and compact growth upon stable miR-221-5p expression.

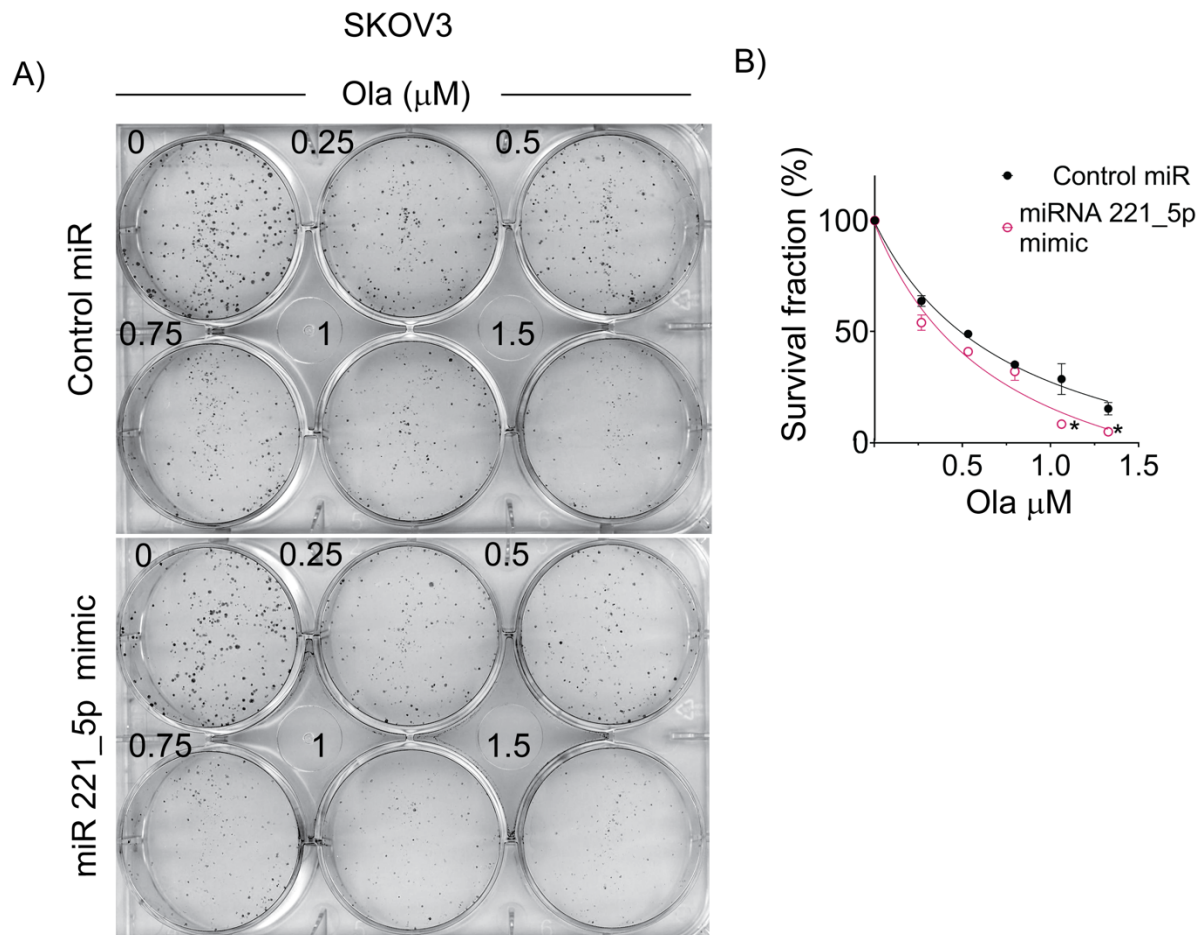
(C) Quantitative analysis of spheroid size (μm) in SKOV3-luc cells stably transduced with a control lentiviral miRNA (Lenti Cnt miR) or a miR-221-5p mimic. Each data point represents an individual spheroid; horizontal lines denote mean $\pm$ SD, all the spheroids bigger than 50 μm were calculated for plotting. (**** $P < 0.0001$, two-tailed t -test).

Supplementary Figure 6. RAD18 and RAD51 expression in parent and their respective resistant cell line.



(A) Immunoblot analysis of RAD18 and RAD51 in A2780 and A2780/CP70, (B) SKOV3 and SKOV3/CP20 cells. Representative low-density colony formation assay in (C) A2780, (D) A2780/CP70, (E) SKOV3 and (F) SKOV3/CP20 cells treated with increasing doses of carboplatin. Quantitative survival fraction analysis of (G) A2780 and A2780/CP70 cells, (H) SKOV3 and SKOV3/CP20 cells treated with varying concentrations of carboplatin. (*P < 0.05, two-tailed t-test).

Supplementary Figure 7. miR-221-5p restoration sensitizes SKOV3 cells to the PARP inhibitor olaparib.



(A) Representative low-density colony formation assay using SKOV3 cells transfected with Control miR or miR-221-5P mimic and treated with increasing doses of olaparib (Ola, 0–1.5 μ M). The experiment was performed in triplicates.

(B) Quantitative survival fraction analysis of SKOV3 cells transfected with Control miR or miR-221-5P mimic and treated with varying concentrations of olaparib. (* $P < 0.05$, two-tailed t -test).

Table 1: Top Significantly Differentially Expressed miRNAs Identified from GSE235525 Based on Adjusted P-Value Ranking.

Re-analysis of the GEO dataset GSE235525 comparing serum miRNA expression profiles from HGSOC patients (CANCER) versus healthy controls (HEALTHY). Log rank values based on adjusted to P-value ranking is represented here.

Total entries: 576

ID	log2(fold change)	-log10(Pvalue)
hsa-let-7b-5p	-0.761721055	5.593294758
hsa-let-7c-5p	-0.298466886	2.120039421
hsa-let-7d-5p	-0.459809209	2.072763577
hsa-let-7e-5p	-0.540889674	4.412845267
hsa-let-7g-5p	-0.795100542	5.928749954
hsa-let-7i-5p	-0.494338187	2.583394954
hsa-miR-1-5p	-0.554903339	3.454950949
hsa-miR-100-5p	-0.458996509	2.38100408
hsa-miR-101-3p	-0.548751739	3.781680542
hsa-miR-103a-3p	-0.350425427	1.637249526
hsa-miR-105-5p	-0.526197852	3.782971604
hsa-miR-106b-5p	-1.053391626	5.168153751
hsa-miR-107	-0.844095781	6.846748379
hsa-miR-10a-5p	-0.270305548	1.768111615
hsa-miR-1178-3p	-0.303336182	2.052313933
hsa-miR-1180-3p	-0.436709551	2.067856879
hsa-miR-1185-1-3p	-0.400571747	1.462685329
hsa-miR-1185-2-3p	-0.657495703	3.308508452
hsa-miR-1185-5p	-0.461871813	3.076127602
hsa-miR-1193	-0.502102247	2.430886359
hsa-miR-1197	-0.33796643	1.890799737
hsa-miR-1200	-0.434404853	2.967444138
hsa-miR-1202	-0.407189729	2.791837397
hsa-miR-1203	-0.535338824	1.781732302
hsa-miR-1204	-0.338327862	1.95804411
hsa-miR-1205	-0.416276207	1.758512844
hsa-miR-1206	-0.398508852	2.105317179
hsa-miR-122-5p	-0.559863192	3.286861199
hsa-miR-1224-5p	-0.49059251	2.12034053
hsa-miR-1226-3p	-0.654141109	3.03494588
hsa-miR-1228-3p	-0.51045263	2.994577585
hsa-miR-1233-3p	-0.305897766	2.758335724

hsa-miR-1234-3p	-0.750483322	4.015567074
hsa-miR-1236-3p	-0.600505547	3.77163568
hsa-miR-124-3p	-0.426280182	2.423511019
hsa-miR-1244	-0.56596154	2.551401552
hsa-miR-1245a	-0.508712333	2.919284007
hsa-miR-1245b-3p	-0.52072268	4.0996344
hsa-miR-1245b-5p	-0.55371184	2.370413654
hsa-miR-1246	-0.505483784	2.859763253
hsa-miR-1247-5p	1.07487136	5.283803532
hsa-miR-1248	-0.767798727	3.719127985
hsa-miR-1249-3p	-0.798594753	3.105581863
hsa-miR-1249-5p	-0.312576938	1.737147942
hsa-miR-1250-5p	-0.737007713	3.45865068
hsa-miR-1252-5p	-0.623467853	2.735433615
hsa-miR-1253	-0.464450986	2.362360388
hsa-miR-1255a	-0.363061204	1.558475555
hsa-miR-1255b-5p	-0.436168626	2.447019213
hsa-miR-125a-3p	-0.375936827	2.129088851
hsa-miR-125a-5p	-0.363981492	2.018806116
hsa-miR-125b-5p	-0.612700765	3.605018055
hsa-miR-126-3p	-0.289123258	1.496402586
hsa-miR-1260a	-1.051391387	6.455270905
hsa-miR-1260b	-0.428022898	1.968696968
hsa-miR-1261	-0.589862242	3.053482539
hsa-miR-1262	-0.479594721	2.843686003
hsa-miR-1266-5p	-0.484349131	1.913398059
hsa-miR-1268b	-0.381219695	1.639209325
hsa-miR-1269a	-0.267399585	1.50994415
hsa-miR-1269b	-0.508803475	2.533962103
hsa-miR-127-3p	-0.548762469	2.955395084
hsa-miR-127-5p	-0.367095824	1.883680728
hsa-miR-1270	-0.744134593	3.857427502
hsa-miR-1271-3p	-0.509534311	3.496372811
hsa-miR-1271-5p	-1.031191711	3.893041403
hsa-miR-1275	-0.400962211	1.496708889
hsa-miR-1278	-0.455118317	2.33494301
hsa-miR-1279	-0.428680355	3.18274702
hsa-miR-128-1-5p	-0.407815149	1.848662144
hsa-miR-128-3p	-0.618225901	2.613590047
hsa-miR-1281	-0.460760714	3.325019808
hsa-miR-1283	-0.478814825	3.127305228
hsa-miR-1285-5p	-0.384461888	2.075778315
hsa-miR-1287-3p	-0.603925423	4.487269631
hsa-miR-1287-5p	-0.505308714	2.27747446
hsa-miR-1288-3p	-0.341148709	1.545512088

hsa-miR-1289	-0.38664985	1.606773697
hsa-miR-129-2-3p	-0.385118243	1.798448127
hsa-miR-129-5p	-0.492931383	2.207386951
hsa-miR-1290	-0.374696251	1.620924059
hsa-miR-1296-5p	-0.313259031	1.777924545
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hsa-miR-1298-5p	-0.536186533	1.822578366
hsa-miR-1301-3p	-0.492928573	2.856307641
hsa-miR-1302	-0.626931672	3.557562828
hsa-miR-1303	-0.328567683	1.937716798
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hsa-miR-130a-3p	-0.387437589	2.217110092
hsa-miR-130b-3p	-0.718637785	3.11483014
hsa-miR-1322	-0.314957382	1.753598061
hsa-miR-133a-3p	-0.452706595	3.098210118
hsa-miR-133a-5p	-0.493438725	3.390298362
hsa-miR-133b	-0.58866441	3.539114796
hsa-miR-134-3p	-0.669905223	2.934897641
hsa-miR-135b-5p	-0.483353098	1.84041785
hsa-miR-136-5p	-0.416464766	2.576633819
hsa-miR-137	-0.790483756	5.009622026
hsa-miR-139-5p	-0.456517846	2.005188723
hsa-miR-140-5p	-0.416951862	1.897216449
hsa-miR-142-5p	-1.251468588	7.475796176
hsa-miR-145-5p	-1.673404538	7.487428375
hsa-miR-1469	-0.586053775	3.635636866
hsa-miR-146b-3p	-0.638357014	3.706644723
hsa-miR-146b-5p	-0.40262681	1.868312068
hsa-miR-147a	-0.548353109	3.935993044
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hsa-miR-151a-3p	-1.204389535	9.655057547
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hsa-miR-152-3p	-0.439921975	2.329209846
hsa-miR-152-5p	-0.583605841	3.060842517
hsa-miR-153-3p	-0.534371586	2.209712869
hsa-miR-1537-3p	-0.519369244	2.900198113
hsa-miR-154-5p	-0.378350112	1.750893922
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hsa-miR-15b-5p	-1.149923819	7.919275058
hsa-miR-16-5p	-1.077516767	8.220750236
hsa-miR-181a-2-3p	-1.134818552	3.493963224
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hsa-miR-181b-2-3p	-0.704889337	4.295694396
hsa-miR-181c-5p	-0.391971092	1.739559055
hsa-miR-181d-3p	-0.421451522	2.178854244
hsa-miR-182-3p	-0.302048506	1.673031133
hsa-miR-182-5p	-0.380177328	2.125712016
hsa-miR-1827	-0.540457311	1.733617993
hsa-miR-184	-0.384005221	2.805774108
hsa-miR-185-5p	-0.61885273	3.705031227
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hsa-miR-188-5p	-0.481855163	2.479580119
hsa-miR-18a-5p	-0.379585177	2.383434387
hsa-miR-18b-5p	-0.439851674	3.30181487
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hsa-miR-190a-5p	-0.308807053	1.778572891
hsa-miR-190b	-0.567801909	4.038786978
hsa-miR-1910-3p	-0.900471332	6.765223786
hsa-miR-1910-5p	-0.39421091	1.762704185
hsa-miR-1915-3p	-0.569787411	3.607806789
hsa-miR-193a-5p+hsa-miR-193b-5p	-0.639893304	3.687080646
hsa-miR-194-5p	-0.556008336	2.767165401
hsa-miR-195-5p	-0.452130236	2.163440242
hsa-miR-196a-3p	-0.458650685	2.920343776
hsa-miR-197-3p	-0.612928739	3.033121033
hsa-miR-197-5p	-0.461854446	2.530642244
hsa-miR-1972	-0.257593148	1.531377473
hsa-miR-1976	-0.401795809	3.046812763
hsa-miR-198	-0.382039928	2.076494752
hsa-miR-199a-3p+hsa-miR-199b-3p	-0.35237602	1.852601743
hsa-miR-199a-5p	-0.706858528	5.606357212
hsa-miR-199b-5p	-0.620573002	4.875113997
hsa-miR-19b-3p	-0.704185774	3.545628331
hsa-miR-200a-3p	-0.687262833	2.866422657
hsa-miR-200b-3p	-0.390133264	2.686824753
hsa-miR-200c-3p	-0.434488781	1.857628791
hsa-miR-203a-3p	-0.513498411	2.340923441
hsa-miR-204-5p	-0.360784626	2.787703546
hsa-miR-206	-0.372979158	1.723918549
hsa-miR-208a-3p	-0.335279104	1.701219055
hsa-miR-208b-3p	-0.309831937	1.648531837

hsa-miR-20a-5p+hsa-miR-20b-5p	-0.535831574	2.265330111
hsa-miR-21-5p	-0.902705183	4.147039987
hsa-miR-211-5p	-0.560463964	2.115331227
hsa-miR-2110	-0.40394887	2.178777573
hsa-miR-2116-5p	-0.466042547	3.11579981
hsa-miR-2117	-0.508966074	2.445449104
hsa-miR-214-3p	-0.530190705	5.058706381
hsa-miR-216a-5p	-0.322198433	1.551773312
hsa-miR-216b-5p	-0.477617042	3.279651126
hsa-miR-217	-0.475562998	2.327789771
hsa-miR-218-5p	-0.342172892	2.190948959
hsa-miR-219a-5p	-0.531797843	2.275839998
hsa-miR-219b-3p	-0.748014454	3.671223378
hsa-miR-22-3p	-0.515328761	2.042754686
hsa-miR-221-5p	-0.915760956	5.696653297
hsa-miR-222-3p	-0.46684721	1.830598638
hsa-miR-224-5p	-0.513761147	1.564360823
hsa-miR-2278	-0.492030753	2.894562197
hsa-miR-23a-3p	-0.579180811	2.120626459
hsa-miR-23c	-0.313980463	2.002570062
hsa-miR-24-3p	-0.46491602	3.139877441
hsa-miR-25-3p	-0.686683266	2.912403223
hsa-miR-25-5p	-0.533879078	2.192231517
hsa-miR-2682-5p	-0.256123968	1.601416862
hsa-miR-26b-5p	-0.35062096	1.998867943
hsa-miR-27a-3p	-0.68791203	5.143492571
hsa-miR-27b-3p	-0.37345265	2.411982136
hsa-miR-28-3p	-0.532737305	3.438817916
hsa-miR-28-5p	-0.615947942	2.75818421
hsa-miR-296-3p	-0.599914152	6.044430714
hsa-miR-296-5p	-0.404919593	2.084582748
hsa-miR-297	-0.527109466	3.555591208
hsa-miR-298	-0.570995417	1.797589837
hsa-miR-299-3p	-0.378485202	2.356285823
hsa-miR-299-5p	-0.489436817	3.873636948
hsa-miR-29a-3p	-0.295574131	1.913736422
hsa-miR-29c-3p	-0.675684744	4.110931587
hsa-miR-300	-0.547505415	3.851922102
hsa-miR-301a-3p	-0.335523869	1.548718195
hsa-miR-301a-5p	-0.347032094	2.327709259
hsa-miR-301b-3p	-0.254663062	1.5812709
hsa-miR-301b-5p	-0.30216586	1.940392481
hsa-miR-302a-5p	-0.503975315	3.956530655
hsa-miR-302c-3p	-0.508710917	2.296414354

hsa-miR-3065-3p	-0.338724505	1.509923148
hsa-miR-3065-5p	-0.307566642	1.66127882
hsa-miR-3074-3p	-0.456655877	1.790265548
hsa-miR-30a-3p	-0.704205411	3.249191867
hsa-miR-30c-5p	-0.567622031	3.601933978
hsa-miR-30d-5p	-0.533457237	2.368516936
hsa-miR-30e-5p	-0.287385502	1.599835271
hsa-miR-3127-5p	-0.563546422	2.481234135
hsa-miR-3130-3p	-0.458850991	2.058257695
hsa-miR-3131	-0.892830055	2.360915207
hsa-miR-3136-5p	-0.316097884	1.481857508
hsa-miR-3140-3p	-0.383637603	2.033677842
hsa-miR-3144-5p	-0.29349314	2.518232312
hsa-miR-3147	-0.373909591	1.738472397
hsa-miR-3150b-3p	-0.399218727	3.366184674
hsa-miR-3161	-0.516851311	2.366429725
hsa-miR-3168	-0.635805423	3.768031155
hsa-miR-3179	-0.260908448	1.487136234
hsa-miR-3180-3p	-0.610913992	2.544798207
hsa-miR-3180-5p	-0.579322197	3.232854894
hsa-miR-3185	-0.414342534	1.926928197
hsa-miR-3190-3p	-0.50321052	2.630827674
hsa-miR-3192-5p	-0.561746818	2.475474863
hsa-miR-3195	-0.429715638	1.496821272
hsa-miR-32-5p	-0.494699103	2.517935019
hsa-miR-3202	-0.845015607	6.748011871
hsa-miR-320a	-0.455713383	1.991481799
hsa-miR-320b	-0.336325728	1.944887113
hsa-miR-320c	-0.34355085	1.590800079
hsa-miR-320d	-0.645559722	4.317109771
hsa-miR-323b-5p	-0.438207744	2.661591475
hsa-miR-324-5p	-0.357115465	2.44125155
hsa-miR-325	-0.682952272	2.798886333
hsa-miR-326	-0.50268513	2.052434875
hsa-miR-328-3p	-0.520836481	2.306153542
hsa-miR-328-5p	-0.513259035	1.650696201
hsa-miR-329-5p	-0.472082278	1.619356341
hsa-miR-330-3p	-0.383827803	1.467073409
hsa-miR-330-5p	-0.497556132	2.385749737
hsa-miR-331-3p	-0.502278555	2.20134136
hsa-miR-331-5p	-0.51912319	2.448175716
hsa-miR-335-5p	-0.546194911	2.119074259
hsa-miR-337-3p	-0.826609057	3.297024773
hsa-miR-337-5p	-0.440785642	3.500910805
hsa-miR-339-3p	-0.307861147	1.515565669

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hsa-miR-33a-5p	-0.394995661	2.743601253
hsa-miR-33b-5p	-0.953379504	3.653179046
hsa-miR-340-5p	-0.294646929	1.891061985
hsa-miR-342-3p	-0.725582224	4.849462312
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hsa-miR-345-3p	-0.415316646	1.983660028
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hsa-miR-346	-0.456938753	1.766150108
hsa-miR-34a-5p	-0.497228886	3.082680464
hsa-miR-34c-5p	-0.85198168	2.58694049
hsa-miR-3605-5p	-0.450462267	2.629624657
hsa-miR-361-5p	-0.375434236	2.075358646
hsa-miR-3613-5p	-0.347171274	2.008304995
hsa-miR-3614-3p	-0.370810092	1.639094677
hsa-miR-3614-5p	-0.486061311	1.710255547
hsa-miR-3615	-0.461254297	3.31002617
hsa-miR-362-5p	-0.196336411	1.607604633
hsa-miR-363-5p	-0.624459785	4.040378733
hsa-miR-365a-3p+hsa-miR-365b-3p	-0.351863335	1.639331595
hsa-miR-367-3p	-0.571474964	3.122811911
hsa-miR-369-3p	-0.489732184	2.036300642
hsa-miR-369-5p	-0.401570473	1.905085017
hsa-miR-3690	-0.414442969	1.77326278
hsa-miR-370-3p	-0.566340482	2.107233637
hsa-miR-371a-5p	-0.472329072	2.55912679
hsa-miR-373-3p	-0.507049099	2.796578395
hsa-miR-374b-5p	-0.769517823	4.973956088
hsa-miR-374c-5p	-0.679829292	4.140469348
hsa-miR-375	-0.428869136	1.740356951
hsa-miR-376a-2-5p	-0.46707961	2.083912219
hsa-miR-376a-3p	-0.48426439	2.033977135
hsa-miR-376b-3p	-0.500643674	2.150730387
hsa-miR-376c-3p	-0.619393751	3.261434687
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hsa-miR-377-3p	-0.403660717	1.647215532
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hsa-miR-378e	-0.478427328	4.08621545
hsa-miR-378g	-0.352817329	2.93466307
hsa-miR-378i	-0.383504296	2.823380331
hsa-miR-379-5p	-0.442340235	2.977863282
hsa-miR-381-5p	-0.401950962	2.087809824
hsa-miR-382-3p	-0.569159591	3.886506096
hsa-miR-383-5p	-0.453722007	2.380566218

hsa-miR-384	-0.39695019	1.557850508
hsa-miR-3916	-0.422839999	1.869765051
hsa-miR-3918	-0.469417528	3.364409108
hsa-miR-3928-3p	-0.620314126	2.933758501
hsa-miR-3934-5p	-0.728488292	3.098839616
hsa-miR-409-5p	-0.615969308	3.227355055
hsa-miR-410-3p	-0.560156671	1.973955463
hsa-miR-411-5p	-0.408676846	1.896188595
hsa-miR-421	-0.419625293	3.792265786
hsa-miR-422a	-0.368215164	2.282195559
hsa-miR-423-3p	-0.563121442	2.852583151
hsa-miR-424-5p	-0.519671167	3.746445659
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hsa-miR-4284	-0.986084789	7.30341204
hsa-miR-4286	-0.467056047	4.472113106
hsa-miR-429	-0.315605917	2.210845011
hsa-miR-431-5p	-0.74916779	3.360201754
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hsa-miR-433-3p	-0.493114016	2.46293953
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hsa-miR-4425	-0.554294004	3.369408976
hsa-miR-4431	-0.565583401	2.340324809
hsa-miR-4443	-0.58453765	3.705332758
hsa-miR-4448	-0.946297954	3.256333059
hsa-miR-4451	-0.410071945	1.644595328
hsa-miR-4454+hsa-miR-7975	-0.498988651	3.035169002
hsa-miR-4455	0.96820289	3.336343985
hsa-miR-4458	-0.611519545	2.253871962
hsa-miR-4461	-0.461890946	1.570132599
hsa-miR-448	-0.309323984	1.719929898
hsa-miR-4485-3p	-0.42465525	2.440311233
hsa-miR-4488	-0.460572468	3.289868668
hsa-miR-449a	-0.469128642	2.76828538
hsa-miR-449c-5p	-0.267727195	1.520891761
hsa-miR-450a-1-3p	-0.501686584	2.713794502
hsa-miR-450a-2-3p	-0.497003923	1.928877913
hsa-miR-450b-3p	-0.289487973	1.472311517
hsa-miR-450b-5p	-0.404685084	2.219659229
hsa-miR-4516	-0.41475129	1.749339802
hsa-miR-452-5p	-1.432531152	4.357444818
hsa-miR-4524a-5p	-0.484056429	2.579914617
hsa-miR-4532	-0.521627125	2.073969244
hsa-miR-4536-5p	-0.451702705	3.404397052
hsa-miR-455-3p	-0.540698579	4.280541508

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hsa-miR-4741	-0.272518096	1.718153198
hsa-miR-4755-5p	-0.395313332	2.003279905
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hsa-miR-485-3p	-0.459126956	3.016877564
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hsa-miR-487a-3p	-0.616017687	5.467037458
hsa-miR-487b-3p	-0.43447419	3.144660191
hsa-miR-487b-5p	-0.35433106	1.93376392
hsa-miR-488-3p	-0.371615263	2.278783524
hsa-miR-490-5p	-0.593137597	4.185851429
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hsa-miR-492	-0.556625827	2.881915758
hsa-miR-493-3p	-0.479202916	2.220728787
hsa-miR-494-3p	-0.426407974	2.417432753
hsa-miR-495-5p	-0.756956418	5.996531432
hsa-miR-496	-0.375943491	2.878836299
hsa-miR-498	-1.253904904	3.365790493
hsa-miR-499b-3p	-0.527571743	3.068080045
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hsa-miR-500a-5p+hsa-miR-501-5p	-0.499071973	3.984248186
hsa-miR-501-3p	-0.585568222	2.943475355
hsa-miR-5010-3p	-0.733874746	3.091119386
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hsa-miR-502-3p	-0.545947209	1.808884206
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hsa-miR-504-5p	-0.517535661	1.670263411
hsa-miR-505-3p	-1.194743075	3.687847909
hsa-miR-506-5p	-0.345961363	2.261004821
hsa-miR-508-5p	-0.333664112	1.463054878
hsa-miR-509-3-5p	-0.32574091	2.100847372
hsa-miR-509-3p	-0.342149141	1.569905486
hsa-miR-509-5p	-0.537107033	3.013722219
hsa-miR-510-5p	-0.401427454	3.001285441
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hsa-miR-513a-3p	-0.495349723	4.162944946
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hsa-miR-513c-3p	-0.560941186	3.003628615

hsa-miR-514a-3p	-0.560280445	3.312146721
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hsa-miR-514b-3p	-0.662945165	3.916459431
hsa-miR-515-3p	-0.324382702	2.188526238
hsa-miR-515-5p	-0.390705065	2.187230557
hsa-miR-516a-3p+hsa-miR-516b-3p	-0.423253446	1.629972688
hsa-miR-517a-3p	-0.673329934	3.800051961
hsa-miR-517b-3p	-0.563782653	4.272048951
hsa-miR-518c-3p	-0.368405962	1.651094157
hsa-miR-5196-3p+hsa-miR-6732-3p	-0.439232801	2.748968783
hsa-miR-5196-5p	-0.442096843	1.546256346
hsa-miR-519b-5p+hsa-miR-519c-5p+hsa-miR-523-5p+hsa-miR-518e-5p+hsa-miR-522-5p+hsa-miR-519a-5p	-0.516652557	2.449205021
hsa-miR-519c-3p	-0.768750593	2.71386341
hsa-miR-519d-3p	-0.292545083	1.788375552
hsa-miR-519e-3p	-0.370609474	1.998668815
hsa-miR-520a-3p	-0.772515813	4.031607719
hsa-miR-520b	-0.391717084	1.999699584
hsa-miR-520c-3p	-0.543429995	2.756104283
hsa-miR-520d-3p	-0.41654738	2.722377408
hsa-miR-520d-5p+hsa-miR-527+hsa-miR-518a-5p	-0.515417064	2.368154183
hsa-miR-520e	-0.489903949	1.881090988
hsa-miR-520g-3p	-0.561454127	2.009803652
hsa-miR-520h	-0.407360393	1.77249714
hsa-miR-521	-0.430217495	1.789126696
hsa-miR-523-3p	-0.510769173	2.975099354
hsa-miR-524-3p	-0.575503014	1.82230927
hsa-miR-525-3p	-0.697183555	3.128168466
hsa-miR-525-5p	-0.871635533	2.325935856
hsa-miR-526a+hsa-miR-518c-5p+hsa-miR-518d-5p	-0.366773667	2.762559582
hsa-miR-532-3p	-0.435793061	2.910187535
hsa-miR-539-3p	-0.522298594	1.905271177
hsa-miR-541-3p	-0.415319398	1.735749994
hsa-miR-542-5p	-0.318786115	1.813215049
hsa-miR-544a	-0.290195576	2.376894171
hsa-miR-548a-3p	-0.451208142	2.263479733
hsa-miR-548a-5p	-0.551292805	2.875508962

hsa-miR-548aa+hsa-miR-548t-3p	-0.293325431	1.925525745
hsa-miR-548ad-3p	-0.590718134	1.577689668
hsa-miR-548ah-5p	-0.33527028	1.950796568
hsa-miR-548ai+hsa-miR-570-5p	-0.381424267	2.356768431
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hsa-miR-548ar-3p	-0.561939302	3.035513419
hsa-miR-548ar-5p	-0.369668281	2.841418484
hsa-miR-548b-3p	-0.277819064	1.610278752
hsa-miR-548c-5p+hsa-miR-548o-5p+hsa-miR-548am-5p	-0.648399349	3.637711248
hsa-miR-548e-3p	-0.610316185	2.365044711
hsa-miR-548e-5p	-0.502580042	2.193973094
hsa-miR-548h-5p	-0.436194815	2.557006747
hsa-miR-548i	-0.539771834	2.373829508
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hsa-miR-548j-5p	-0.817811335	2.80389766
hsa-miR-548l	-0.402806774	2.659796628
hsa-miR-548n	-0.284825024	1.556152058
hsa-miR-548o-3p+hsa-miR-548ah-3p+hsa-miR-548av-3p	-0.874880191	2.489567196
hsa-miR-548q	-0.719004895	3.879487185
hsa-miR-548y	-0.580346032	4.489715396
hsa-miR-548z+hsa-miR-548h-3p	-0.343470557	2.188527541
hsa-miR-549a	-0.6297554	3.116167619
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hsa-miR-551b-3p	-0.489726453	2.030028497
hsa-miR-552-3p	-0.310877917	2.211393586
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hsa-miR-561-3p	-0.345563485	2.0939931
hsa-miR-563	-0.575859969	2.332880928
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hsa-miR-566	-0.393060019	2.384255992
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hsa-miR-571	-0.389579223	1.809872426
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hsa-miR-580-3p	-0.576139799	2.058265726
hsa-miR-582-5p	-0.352772063	1.967038965
hsa-miR-584-3p	-0.321386018	2.421081376
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hsa-miR-593-3p	-0.452811618	1.949509718
hsa-miR-595	-0.427860717	2.094914222
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hsa-miR-604	-0.665437103	2.513714255
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hsa-miR-615-3p	-0.40510915	2.927818709
hsa-miR-617	-0.42558485	1.999632431
hsa-miR-619-3p	-0.548881393	2.251877241
hsa-miR-620	-0.665843032	3.801527006
hsa-miR-624-3p	-0.317883484	1.483454509
hsa-miR-625-5p	-0.45741156	2.116097788
hsa-miR-627-3p	-0.458328431	3.136681005
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hsa-miR-628-3p	-0.693936509	3.252524086
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hsa-miR-630	-0.357539738	1.817123153
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hsa-miR-642a-5p	-0.695640048	3.393242185
hsa-miR-643	-0.437789823	2.875770019
hsa-miR-648	-0.485013142	1.823955266
hsa-miR-649	-0.423407888	2.854993554
hsa-miR-6503-3p	-0.428473991	3.397889463
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hsa-miR-660-5p	-0.532282581	4.162206609
hsa-miR-661	-0.309766912	2.166913764
hsa-miR-663a	-0.475005762	3.475127649
hsa-miR-664a-3p	-0.505678686	3.76420382
hsa-miR-664b-3p	-0.365383658	2.442869031
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hsa-miR-671-5p	-0.834464868	2.917772066
hsa-miR-6720-3p	-0.685807289	2.365799165
hsa-miR-6721-5p	-0.517256915	3.549566877
hsa-miR-6724-5p	-0.721185364	3.196214882
hsa-miR-675-5p	-0.451576244	2.060016352
hsa-miR-7-5p	-0.357712342	2.035852154
hsa-miR-708-5p	-0.345725852	2.066993988
hsa-miR-758-3p+hsa-miR-411-3p	-0.69291845	3.344538855
hsa-miR-758-5p	-0.306217277	1.583734943
hsa-miR-760	-1.028583968	4.036414478
hsa-miR-764	-0.683143527	3.1635574
hsa-miR-766-3p	-0.473999316	2.982440911
hsa-miR-766-5p	-0.538590416	2.159301483
hsa-miR-767-5p	-0.386362706	1.644253939
hsa-miR-769-3p	-0.303083083	1.688108065
hsa-miR-769-5p	-0.388087053	2.457741193
hsa-miR-770-5p	-0.46584854	2.817619877
hsa-miR-802	-0.53691187	3.148693183
hsa-miR-873-3p	-0.356845468	2.354755456
hsa-miR-873-5p	-0.556659099	1.997540799
hsa-miR-874-3p	-0.61793203	3.281744642
hsa-miR-875-3p	-0.411352232	2.371200587
hsa-miR-876-5p	-0.370458634	1.921810703
hsa-miR-877-5p	-0.407117855	2.044210372
hsa-miR-885-5p	-0.357063133	1.584739554
hsa-miR-887-3p	-0.282025881	1.569354594
hsa-miR-887-5p	-0.392796844	1.794339457
hsa-miR-888-5p	-0.248423363	1.589776113
hsa-miR-889-3p	-0.333871954	1.633246384
hsa-miR-891a-5p	-0.659162226	3.700347671
hsa-miR-891b	-0.407085948	2.912082914
hsa-miR-892a	-0.515982044	4.051579214
hsa-miR-892b	-0.43509111	2.732880179
hsa-miR-9-5p	-0.5425706	2.967529378
hsa-miR-924	-0.418454879	3.14481311
hsa-miR-92a-1-5p	-0.434369599	1.696675567

hsa-miR-92a-3p	-0.38141459	2.37567686
hsa-miR-92b-3p	-0.806357344	3.387786079
hsa-miR-933	-0.908425964	5.82960703
hsa-miR-934	-0.279990538	1.62117063
hsa-miR-935	-0.510761331	2.259594585
hsa-miR-936	-0.449698438	2.168451993
hsa-miR-937-3p	-0.304172421	1.782376475
hsa-miR-939-5p	-0.315965623	1.755911339
hsa-miR-940	-0.275777105	1.731941916
hsa-miR-941	-0.575934864	2.862881059
hsa-miR-942-3p	-0.593338477	2.860401915
hsa-miR-944	-0.340877627	1.461110219
hsa-miR-96-5p	-0.243472989	1.839772923
hsa-miR-98-5p	-0.606569304	3.500349131
hsa-miR-99a-5p	-0.53673085	2.376735767
hsa-miR-99b-5p	-0.398202632	2.015559489