

SUPPLEMENTARY INFORMATION

TITLE: PLASMA MICRORNA EXPRESSION PROFILE FOR REDUCED EJECTION FRACTION IN DILATED CARDIOMYOPATHY

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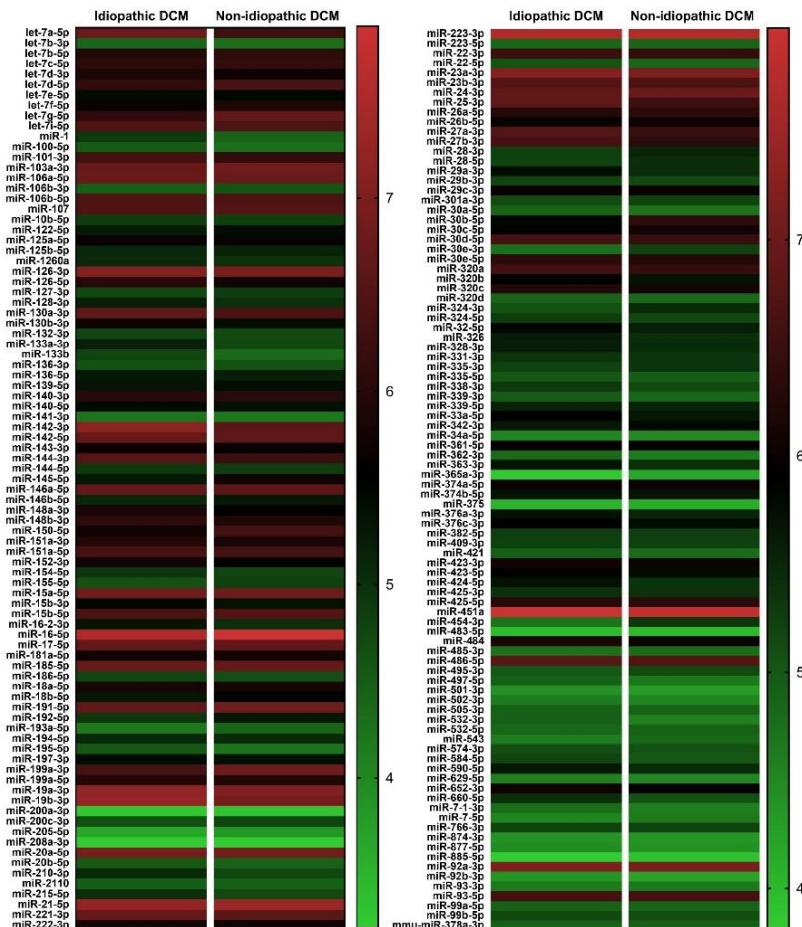
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Supplemental figure 1

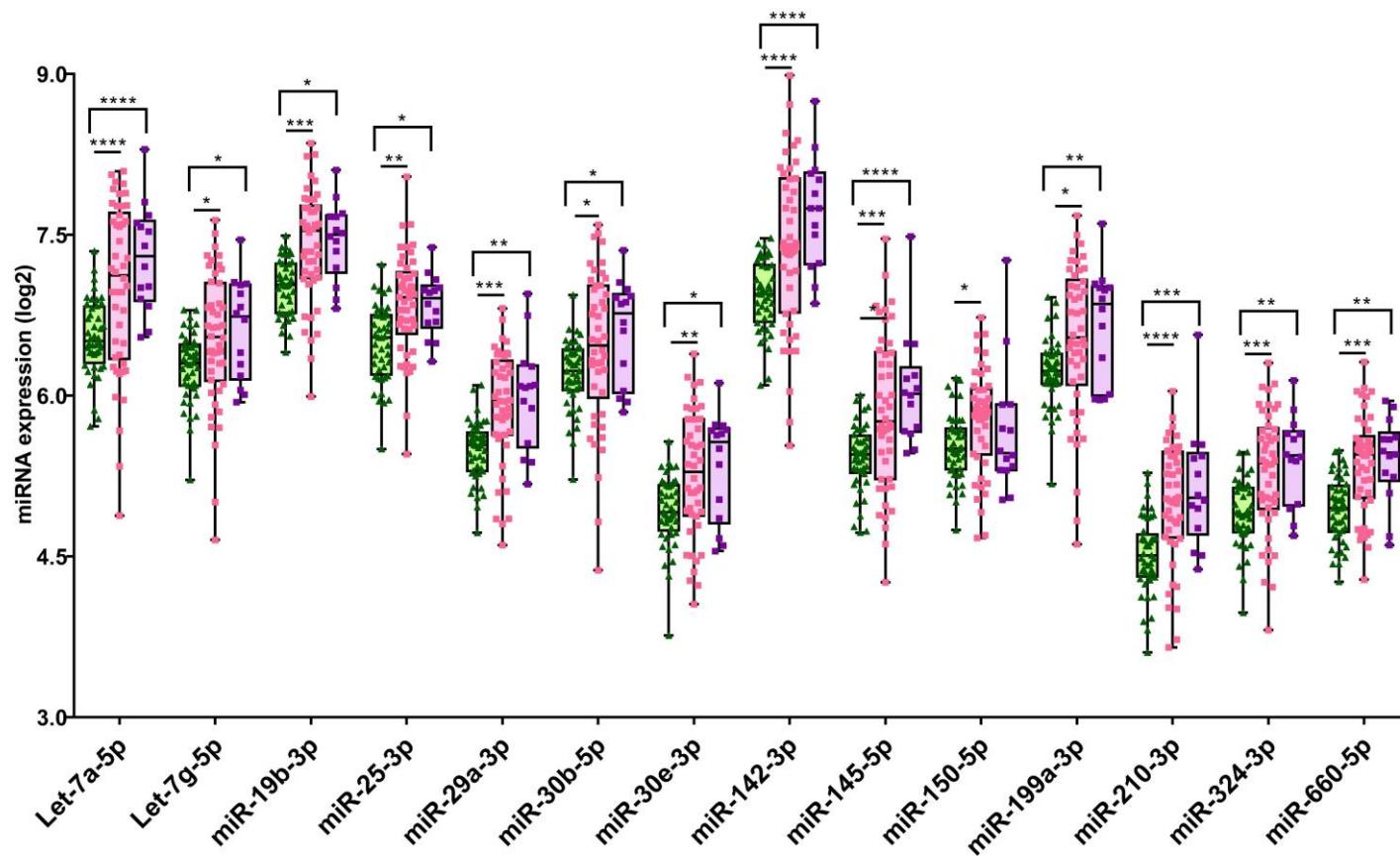
FIGURE S1.



Supplemental figure 2

FIGURE S2.

Healthy control Ischemic DCM^{MOD} Ischemic DCM^{SEV}



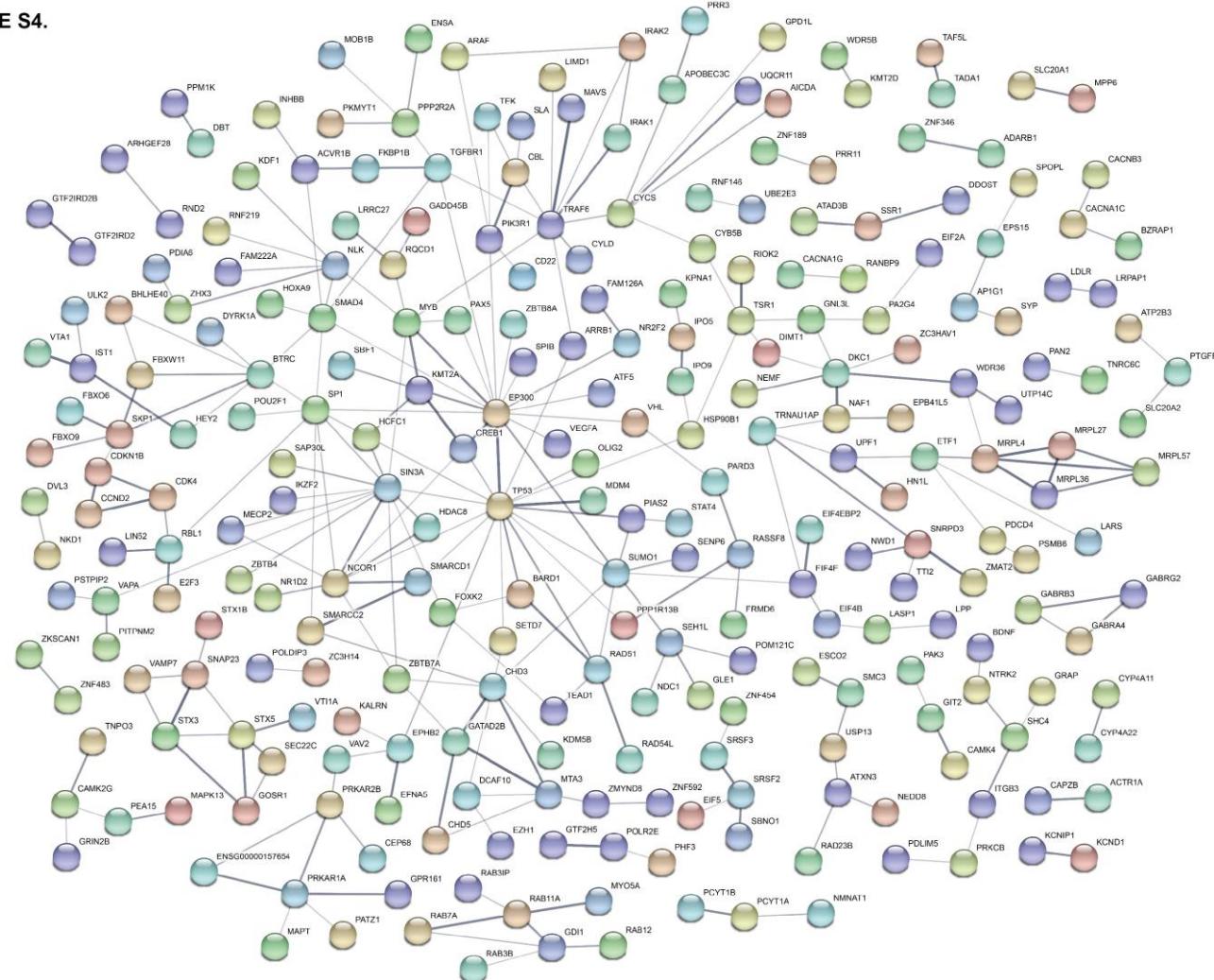
Supplemental figure 3

FIGURE S3.



Supplemental figure 4

FIGURE S4.



Supplemental Table 1

miRNA	Idopathic DCM		<i>p</i> value
	Median (Q1-Q3)	Median (Q1-Q3)	
let-7a-5p	6.740 (6.338 - 7.178)	6.385 (6.080 - 6.535)	0.0487
let-7b-3p	4.346 (4.054 - 4.660)	4.132 (4.024 - 4.679)	0.4764
let-7b-5p	5.845 (5.625 - 6.443)	6.205 (5.646 - 6.601)	0.4487
let-7c-5p	6.165 (5.670 - 6.422)	6.274 (5.498 - 6.618)	0.7783
let-7d-3p	5.763 (5.484 - 6.276)	5.680 (5.464 - 6.050)	0.5345
let-7d-5p	6.067 (5.223 - 6.780)	6.353 (6.183 - 6.655)	0.3127
let-7e-5p	5.477 (4.804 - 5.940)	5.485 (4.980 - 5.863)	0.848
let-7f-5p	5.447 (4.809 - 6.493)	5.866 (5.684 - 6.187)	0.4626
let-7g-5p	6.098 (5.551 - 6.807)	6.495 (6.280 - 7.120)	0.0452
let-7i-5p	6.432 (6.047 - 6.844)	6.381 (6.099 - 6.791)	0.9551
miR-1	4.834 (4.638 - 5.391)	4.473 (3.943 - 4.767)	0.018
miR-100-5p	4.550 (4.232 - 4.736)	4.234 (3.933 - 4.461)	0.0875
miR-101-3p	6.329 (5.938 - 6.659)	6.067 (5.737 - 6.478)	0.2515
miR-103a-3p	6.654 (6.087 - 7.344)	6.709 (6.555 - 7.221)	0.7436
miR-106a-5p	6.752 (6.243 - 7.257)	6.656 (6.448 - 7.069)	0.9911
miR-106b-3p	4.292 (3.965 - 4.910)	4.559 (4.235 - 4.990)	0.5199
miR-106b-5p	6.377 (5.985 - 6.954)	6.265 (6.041 - 6.765)	0.8303
miR-107	6.479 (5.999 - 6.924)	6.546 (6.061 - 6.859)	0.8304
miR-10b-5p	4.819 (4.646 - 5.067)	4.819 (4.507 - 5.046)	0.7268
miR-122-5p	5.300 (4.650 - 5.706)	5.400 (4.772 - 5.863)	0.3353
miR-125a-5p	5.714 (5.081 - 6.229)	5.552 (5.360 - 5.965)	0.973

miR-125b-5p	5.060 (4.764 - 5.402)	5.011 (4.815 - 5.359)	0.848
miR-1260a	5.164 (4.510 - 5.619)	5.324 (4.060 - 5.584)	0.955
miR-126-3p	7.034 (6.590 - 7.593)	6.823 (6.651 - 7.360)	0.6603
miR-126-5p	5.972 (5.573 - 6.526)	5.771 (5.334 - 6.272)	0.4026
miR-127-3p	4.336 (3.932 - 5.495)	4.849 (4.368 - 5.229)	0.4088
miR-128-3p	5.112 (4.815 - 5.545)	4.979 (4.776 - 5.321)	0.3591
miR-130a-3p	6.580 (6.407 - 7.036)	6.274 (6.124 - 6.735)	0.1608
miR-130b-3p	5.660 (5.307 - 6.059)	5.260 (5.040 - 5.790)	0.0138
miR-132-3p	4.737 (4.412 - 5.177)	4.694 (4.368 - 5.102)	0.7433
miR-133a-3p	5.101 (4.887 - 5.639)	4.620 (4.284 - 5.156)	0.0283
miR-133b	4.748 (4.539 - 5.275)	4.180 (3.997 - 4.651)	0.0361
miR-136-3p	4.706 (3.651 - 5.434)	4.635 (3.944 - 5.150)	0.9553
miR-136-5p	4.915 (4.712 - 6.165)	5.147 (4.746 - 5.630)	0.8747
miR-139-5p	5.132 (4.790 - 5.966)	5.381 (5.070 - 5.984)	0.7015
miR-140-3p	5.957 (5.684 - 6.326)	5.920 (5.643 - 6.291)	0.7267
miR-140-5p	5.431 (4.951 - 5.815)	5.244 (5.037 - 5.645)	0.7958
miR-141-3p	4.226 (3.618 - 4.938)	4.145 (3.854 - 4.621)	0.991
miR-142-3p	7.120 (6.595 - 7.705)	6.640 (6.375 - 6.860)	0.0345
miR-142-5p	6.724 (6.277 - 7.264)	6.482 (6.295 - 6.854)	0.8129
miR-143-3p	5.549 (5.236 - 6.242)	5.609 (5.208 - 5.878)	0.9192
miR-144-3p	6.463 (6.200 - 6.841)	6.087 (5.716 - 6.649)	0.1408
miR-144-5p	4.877 (4.539 - 5.113)	4.872 (4.585 - 5.118)	0.8835
miR-145-5p	5.385 (4.988 - 5.648)	5.775 (5.418 - 6.098)	0.0432
miR-146a-5p	6.578 (6.297 - 7.169)	6.540 (6.322 - 6.965)	0.9735
miR-146b-5p	5.102 (4.705 - 5.502)	5.214 (4.713 - 5.685)	0.6117
miR-148a-3p	5.832 (5.444 - 6.378)	5.527 (5.110 - 6.002)	0.2424
miR-148b-3p	6.017 (5.791 - 6.395)	5.914 (5.625 - 6.226)	0.4224

miR-150-5p	5.738 (5.408 - 5.906)	6.090 (5.780 - 6.670)	0.0427
miR-151a-3p	5.762 (5.623 - 6.367)	5.877 (5.417 - 6.222)	0.9192
miR-151a-5p	6.315 (5.813 - 6.996)	6.232 (6.077 - 6.798)	>0.9999
miR-152-3p	5.669 (5.446 - 6.112)	5.601 (5.219 - 5.941)	0.396
miR-154-5p	4.791 (4.465 - 5.467)	4.698 (4.172 - 5.210)	0.4907
miR-155-5p	4.586 (4.128 - 5.139)	4.684 (4.516 - 5.287)	0.4087
miR-15a-5p	6.787 (6.491 - 7.220)	6.701 (6.502 - 7.117)	0.7352
miR-15b-3p	5.456 (5.146 - 5.789)	5.339 (5.047 - 5.625)	0.4623
miR-15b-5p	6.595 (5.955 - 7.119)	6.558 (5.950 - 6.925)	0.9372
miR-16-2-3p	5.420 (5.030 - 5.510)	4.990 (4.773 - 5.295)	0.0281
miR-16-5p	7.560 (7.423 - 7.690)	7.915 (7.610 - 8.180)	0.0257
miR-17-5p	6.643 (6.215 - 7.132)	6.585 (6.332 - 7.041)	0.973
miR-181a-5p	5.674 (5.200 - 6.236)	5.823 (5.488 - 6.139)	0.7015
miR-185-5p	6.677 (6.326 - 7.102)	6.668 (6.455 - 6.940)	0.9461
miR-186-5p	4.849 (4.103 - 5.526)	4.787 (3.897 - 5.201)	0.7954
miR-18a-5p	5.812 (5.256 - 6.391)	5.716 (5.491 - 6.114)	>0.9999
miR-18b-5p	5.255 (4.813 - 5.941)	5.372 (5.092 - 5.852)	0.4017
miR-191-5p	6.668 (5.897 - 7.207)	6.663 (6.517 - 7.180)	0.5495
miR-192-5p	4.920 (4.680 - 5.180)	5.235 (4.953 - 5.580)	0.0398
miR-193a-5p	4.238 (3.728 - 4.495)	4.352 (4.177 - 4.555)	0.3241
miR-194-5p	5.011 (4.789 - 5.452)	4.998 (4.774 - 5.484)	0.7612
miR-195-5p	4.524 (4.300 - 5.031)	4.317 (3.653 - 4.591)	0.1226
miR-197-3p	5.465 (4.901 - 5.830)	5.258 (5.107 - 5.676)	0.9371
miR-199a-3p	6.280 (6.065 - 6.970)	6.735 (6.413 - 7.220)	0.0417
miR-199a-5p	5.996 (5.398 - 6.508)	5.755 (5.603 - 6.213)	0.9547
miR-19a-3p	7.201 (6.868 - 7.573)	6.946 (6.658 - 7.356)	0.2514
miR-19b-3p	7.260 (6.918 - 7.638)	6.845 (6.680 - 7.195)	0.0304

miR-200a-3p	3.138 (3.138 - 3.207)	3.138 (3.138 - 3.490)	0.9768
miR-200c-3p	4.720 (3.949 - 5.143)	4.737 (4.583 - 5.100)	0.744
miR-205-5p	3.724 (3.553 - 3.763)	3.783 (3.553 - 4.162)	0.244
miR-208a-3p	3.220 (3.220 - 3.220)	3.220 (3.220 - 3.220)	>0.9999
miR-20a-5p	6.869 (6.502 - 7.319)	6.849 (6.581 - 7.196)	0.8129
miR-20b-5p	4.631 (4.139 - 4.986)	4.532 (3.869 - 4.993)	0.6934
miR-210-3p	4.966 (4.724 - 5.470)	4.685 (4.500 - 4.983)	0.0493
miR-2110	4.341 (4.102 - 4.951)	4.266 (4.101 - 4.743)	>0.9999
miR-215-5p	5.005 (4.698 - 5.358)	4.695 (4.570 - 4.855)	0.0266
miR-21-5p	7.195 (6.962 - 7.682)	7.363 (6.912 - 7.923)	0.9347
miR-221-3p	6.588 (6.312 - 7.164)	6.498 (6.323 - 6.905)	0.6275
miR-222-3p	5.632 (5.469 - 6.127)	5.621 (5.380 - 6.043)	0.5802
miR-223-3p	7.734 (7.157 - 8.241)	7.492 (7.326 - 8.024)	0.9376
miR-223-5p	4.653 (4.497 - 5.151)	4.806 (4.455 - 5.147)	0.919
miR-22-3p	6.530 (6.221 - 6.944)	6.390 (6.074 - 6.673)	0.5196
miR-22-5p	5.086 (4.619 - 5.397)	4.758 (4.523 - 5.146)	0.313
miR-23a-3p	7.183 (6.689 - 7.615)	7.052 (6.873 - 7.446)	0.8393
miR-23b-3p	6.608 (6.256 - 7.164)	6.664 (6.356 - 6.955)	0.9013
miR-24-3p	6.803 (6.580 - 7.406)	6.902 (6.570 - 7.495)	0.8896
miR-25-3p	6.885 (6.548 - 7.158)	6.550 (6.375 - 6.618)	0.0495
miR-26a-5p	6.323 (5.775 - 6.853)	6.488 (5.646 - 7.016)	0.9103
miR-26b-5p	5.873 (5.583 - 6.551)	6.204 (5.172 - 6.672)	0.7433
miR-27a-3p	6.820 (6.245 - 7.269)	6.466 (6.134 - 6.876)	0.3021
miR-27b-3p	6.685 (6.134 - 7.051)	6.295 (5.892 - 6.720)	0.1824
miR-28-3p	5.188 (4.825 - 5.857)	5.409 (5.173 - 6.024)	0.3772
miR-28-5p	5.131 (4.418 - 5.999)	5.307 (5.114 - 5.820)	0.5802
miR-29a-3p	6.080 (5.550 - 6.170)	5.340 (5.210 - 5.748)	0.0461

miR-29b-3p	5.213 (4.850 - 5.665)	4.855 (4.769 - 5.351)	0.5496
miR-29c-3p	6.018 (5.622 - 6.508)	5.934 (5.626 - 6.323)	0.8305
miR-301a-3p	5.152 (4.560 - 5.691)	5.054 (4.866 - 5.576)	0.9192
miR-30a-5p	4.835 (4.486 - 5.474)	4.772 (4.176 - 5.148)	0.6766
miR-30b-5p	5.740 (5.240 - 6.530)	6.305 (5.994 - 6.824)	0.0379
miR-30c-5p	5.963 (5.337 - 6.561)	5.947 (5.804 - 6.347)	0.7267
miR-30d-5p	6.439 (6.249 - 6.952)	6.484 (6.068 - 6.954)	0.6604
miR-30e-3p	4.550 (4.240 - 5.285)	5.120 (4.805 - 5.695)	0.0446
miR-30e-5p	6.261 (5.966 - 6.760)	6.254 (5.810 - 6.608)	0.6929
miR-320a	6.513 (6.201 - 6.973)	6.445 (5.922 - 6.763)	0.5958
miR-320b	5.835 (5.381 - 6.376)	5.816 (5.255 - 6.218)	0.66
miR-320c	6.247 (5.799 - 6.770)	6.214 (5.705 - 6.579)	0.6275
miR-320d	5.151 (3.559 - 5.656)	5.156 (3.981 - 5.546)	>0.9999
miR-324-3p	4.950 (4.735 - 5.500)	5.420 (5.045 - 5.875)	0.0364
miR-324-5p	5.170 (4.841 - 5.901)	5.010 (4.795 - 5.523)	0.7613
miR-32-5p	5.800 (5.553 - 6.229)	5.457 (5.308 - 5.925)	0.1505
miR-326	5.552 (5.206 - 6.064)	5.254 (5.090 - 5.694)	0.3241
miR-328-3p	5.587 (5.132 - 6.003)	5.374 (5.151 - 5.845)	0.5957
miR-331-3p	5.380 4.842 - 5.897)	5.176 4.943 - 5.727)	0.9192
miR-335-3p	5.159 4.762 - 5.632)	5.284 5.019 - 5.605)	0.4904
miR-335-5p	5.234 (4.238 - 5.754)	5.054 (4.441 - 5.462)	0.7694
miR-338-3p	5.237 (4.823 - 5.728)	4.985 (4.771 - 5.599)	0.5197
miR-339-3p	4.979 (4.480 - 5.424)	4.719 (4.548 - 5.248)	0.6728
miR-339-5p	5.641 (4.935 - 6.155)	5.473 (5.159 - 5.899)	0.9908
miR-33a-5p	5.931 (5.501 - 6.263)	5.514 (5.279 - 6.071)	0.2422
miR-342-3p	5.455 (5.283 - 6.200)	5.628 (5.400 - 6.150)	0.8837
miR-34a-5p	4.467 (4.140 - 4.942)	4.399 (4.211 - 4.671)	0.8837

miR-361-5p	5.806 (5.532 - 6.447)	5.757 (5.508 - 6.226)	0.7695
miR-362-3p	4.802 (4.475 - 5.079)	4.474 (4.306 - 5.035)	0.261
miR-363-3p	5.670 (5.480 - 5.920)	5.345 (5.178 - 5.718)	0.0428
miR-365a-3p	3.925 (3.456 - 4.200)	4.058 (3.880 - 4.510)	0.2108
miR-374a-5p	6.063 (5.463 - 6.559)	5.964 (5.640 - 6.542)	0.9103
miR-374b-5p	5.675 (5.168 - 6.313)	5.634 (5.159 - 6.216)	0.973
miR-375	3.959 (3.725 - 4.369)	3.970 (3.876 - 4.476)	0.5956
miR-376a-3p	5.712 (5.076 - 6.187)	5.553 (5.108 - 6.024)	0.4224
miR-376c-3p	5.766 (5.438 - 6.538)	5.684 (5.115 - 6.271)	0.7098
miR-382-5p	5.117 (4.818 - 5.710)	5.300 (4.735 - 5.626)	0.8602
miR-409-3p	5.051 (4.643 - 5.809)	5.244 (4.660 - 5.682)	0.8479
miR-421	4.789 (4.551 - 5.402)	4.687 (4.525 - 5.235)	0.6439
miR-423-3p	6.030 (5.601 - 6.459)	5.882 (5.716 - 6.452)	0.8658
miR-423-5p	5.775 (5.554 - 6.143)	5.776 (5.290 - 6.085)	0.6765
miR-424-5p	5.822 (5.176 - 6.101)	5.485 (4.807 - 5.774)	0.1477
miR-425-3p	5.369 (4.921 - 5.767)	5.242 (5.088 - 5.621)	0.7959
miR-425-5p	6.278 (5.857 - 6.665)	6.198 (6.033 - 6.599)	0.7608
miR-451a	8.104 (7.564 - 8.270)	7.812 (7.472 - 8.253)	0.4762
miR-454-3p	4.690 (4.170 - 5.395)	5.315 (4.985 - 5.513)	0.0428
miR-483-5p	3.980 (3.758 - 4.290)	3.937 (3.849 - 4.371)	0.5953
miR-484	6.114 (5.705 - 6.578)	5.981 (5.727 - 6.306)	0.4764
miR-485-3p	4.480 (4.136 - 5.411)	4.737 (4.346 - 5.202)	0.733
miR-486-5p	6.861 (6.449 - 7.108)	6.664 (6.516 - 6.966)	0.6437
miR-495-3p	4.658 (4.512 - 5.784)	5.019 (4.683 - 5.582)	0.5338
miR-497-5p	4.835 (4.573 - 5.238)	4.586 (4.472 - 4.855)	0.1749
miR-501-3p	4.340 (4.085 - 4.777)	4.291 (3.944 - 4.663)	0.4625
miR-502-3p	4.603 (4.366 - 5.018)	4.447 (4.187 - 4.788)	0.4222

miR-505-3p	4.781 (4.399 - 5.351)	4.763 (4.427 - 5.312)	0.991
miR-532-3p	4.860 (4.570 - 5.255)	4.625 (4.383 - 4.695)	0.5957
miR-532-5p	4.761 (4.535 - 5.225)	4.821 (4.672 - 5.110)	0.04
miR-543	4.364 (4.080 - 5.305)	4.752 (4.356 - 5.286)	0.3471
miR-574-3p	4.904 (4.693 - 5.508)	4.875 (4.726 - 5.562)	0.9734
miR-584-5p	5.112 (4.750 - 5.653)	5.099 (4.489 - 5.370)	0.5648
miR-590-5p	5.726 (5.460 - 5.957)	5.320 (5.124 - 5.842)	0.179
miR-629-5p	4.529 (4.304 - 4.883)	4.497 (4.122 - 4.820)	0.5802
miR-652-3p	5.995 (5.595 - 6.486)	5.918 (5.578 - 6.253)	0.5646
miR-660-5p	5.345 (5.210 - 5.610)	5.060 (4.793 - 5.403)	0.0151
miR-7-1-3p	4.740 (4.311 - 5.149)	4.515 (4.185 - 5.036)	0.4906
miR-7-5p	4.540 (4.057 - 5.044)	4.735 (4.258 - 5.086)	0.643
miR-766-3p	5.165 (4.705 - 5.728)	4.996 (4.913 - 5.668)	0.8836
miR-874-3p	4.325 (4.124 - 4.654)	4.298 (3.995 - 4.471)	0.7609
miR-877-5p	4.354 (4.098 - 4.915)	4.369 (4.112 - 4.692)	0.8129
miR-885-5p	3.786 (3.394 - 4.315)	4.073 (3.580 - 4.296)	0.6928
miR-92a-3p	7.174 (6.866 - 7.576)	7.018 (6.852 - 7.451)	0.7015
miR-92b-3p	4.245 (4.033 - 4.879)	4.362 (3.852 - 4.680)	0.6273
miR-93-3p	4.529 (4.337 - 5.085)	4.523 (4.383 - 4.907)	0.9552
miR-93-5p	6.531 (6.157 - 6.940)	6.544 (6.298 - 6.845)	0.9189
miR-99a-5p	4.795 (4.665 - 5.167)	4.845 (4.552 - 5.235)	0.9193
miR-99b-5p	5.144 (4.713 - 5.550)	5.081 (4.811 - 5.474)	0.9551
mmu-miR-378a-3p	4.961 (4.561 - 5.194)	4.773 (4.515 - 5.209)	0.8656

Data presented as median (Q1-Q3). Differences between groups were analyzed using Mann-Whitney test. Abbreviations: DCM, dilated cardiomyopathy

Supplemental Table 2

Supplemental Table 2. Pearson correlation between the echocardiographic parameter and individual miRNA levels for EF subtype categorization in ischemic DCM patients.

microRNA	Ischemic DCM											
	LVEF (%)				LVESD (mm)				Left Atrium (mm)			
	DCM ^{SEV}		DCM ^{MOD}		DCM ^{SEV}		DCM ^{MOD}		DCM ^{SEV}		DCM ^{MOD}	
	r	p	r	p	r	p	r	p	r	p	r	p
let-7a-5p	-0.384	0.176	0.111	0.463	0.092	0.753	0.297	0.045	0.282	0.328	0.172	0.253
let-7g-5p	-0.204	0.485	0.138	0.359	0.076	0.795	0.248	0.096	0.499	0.069	0.124	0.410
miR-1-3p	0.211	0.470	0.169	0.260	0.005	0.985	0.222	0.138	0.399	0.158	-0.099	0.514
miR-16-5p	0.012	0.968	-0.030	0.125	-0.261	0.367	0.322	0.125	0.416	0.139	0.201	0.125
miR-16-2-3p	0.010	0.973	-0.047	0.259	-0.477	0.084	0.351	0.259	0.301	0.295	0.232	0.259
miR-19b-3p	0.027	0.927	-0.026	0.861	-0.133	0.650	0.309	0.037	0.472	0.088	0.194	0.197
miR-25-3p	-0.029	0.922	0.191	0.204	-0.218	0.454	0.170	0.260	0.499	0.069	0.076	0.615
miR-29a-3p	0.332	0.069	0.199	0.184	-0.266	0.069	0.273	0.067	0.282	0.069	0.136	0.369
miR-30b-5p	-0.070	0.139	0.192	0.201	0.136	0.139	0.229	0.126	0.420	0.139	0.085	0.576
miR-30e-3p	-0.026	0.259	0.078	0.607	0.124	0.259	0.379	0.009	0.435	0.259	0.157	0.297
miR-130b-3p	0.144	0.624	0.131	0.385	-0.204	0.483	0.102	0.500	0.416	0.139	-0.013	0.930
miR-133a-3p	-0.171	0.560	0.135	0.372	0.225	0.440	0.136	0.366	0.324	0.259	0.006	0.967
miR-133b	0.262	0.365	0.172	0.252	0.083	0.778	0.051	0.736	0.430	0.125	0.171	0.256
miR-142-3p	-0.277	0.338	0.195	0.069	-0.024	0.936	0.177	0.069	0.290	0.315	0.160	0.069
miR-145-5p	-0.458	0.099	0.229	0.139	0.037	0.900	0.346	0.139	0.252	0.384	0.091	0.139
miR-150-5p	0.086	0.769	0.000	0.158	0.060	0.838	0.306	0.158	0.320	0.264	0.185	0.158
miR-192-5p	0.199	0.496	0.155	0.304	-0.531	0.051	0.209	0.164	0.126	0.668	0.072	0.636
miR-199a-3p	0.017	0.955	0.051	0.738	0.053	0.857	0.287	0.053	0.468	0.091	0.192	0.201
miR-210-3p	0.214	0.463	0.014	0.924	-0.398	0.159	0.357	0.015	0.119	0.685	0.199	0.186
miR-215-3p	0.274	0.343	-0.009	0.952	-0.562	0.037	0.304	0.040	0.200	0.494	0.175	0.244
miR-324-3p	0.199	0.125	0.053	0.729	-0.126	0.125	0.238	0.112	0.533	0.125	0.139	0.356
miR-363-3p	0.115	0.158	-0.050	0.741	-0.404	0.158	0.329	0.025	0.492	0.158	0.220	0.142
miR-454-3p	-0.328	0.252	0.144	0.338	0.056	0.850	0.063	0.677	0.288	0.319	0.022	0.884
miR-532-5p	0.012	0.969	0.030	0.841	-0.257	0.375	0.357	0.015	0.492	0.074	0.143	0.344
miR-629-5p	0.215	0.460	-0.252	0.091	-0.252	0.385	0.303	0.041	0.286	0.322	0.229	0.125

miR-660-5p	0.090	0.760	-0.087	0.564	-0.436	0.119	0.302	0.041	0.316	0.272	0.253	0.089
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Abbreviations: DCM, dilated cardiomyopathy; DCM^{MOD}, dilated cardiomyopathy with ejection fraction \geq 31-49%; DCM^{SEV}, dilated cardiomyopathy with ejection fraction \leq 30%; EF, ejection fraction; LVESD, LV end-systolic diameter. Coefficient significant at $p < 0.05$.

Supplemental Table 3. Pathway analysis main findings: PPI enrichment analysis based on miR-210-3p and miR-150-5p target genes

Pathway	Overlap	FDR	Genes	Database
Regulation of cellular process	605/10484	0.00027	AAK1.ACER2.ACSL4.ACTR1A.ACVR1B.ADAM22.ADARB1.ADIPOR2.ADORA2A.ADRBK2.AHI1.AICDA.AIFM2.AKAP2.ALC AM.ALOX15B.AMOTL1.ANKRD6.AP1G1.APOBEC3C.APOPT1.ARAF.ARPIP2.ARHGEF10L.ARHGEF28.ARL6IP1.ARRB1.ATAT1.ATCAY.ATF5.ATOH8.ATP6V1H.ATP8A2.ATXN3.BACH2.BARD1.BASP1.BDNF.BHLHE40.BLZF1.BORA.BSN.BTLA .BTRC.C12orf5.C2.C2CD2L.CA8.CABP4.CACNA1C.CACNA1G.CACNB3.CACNG8.CALCR.CAMK2G.CAMK4.CAMSAP1.CAMTA1.CAPZB.CAST.CBL.CBX2.CBX3.CCND2.CCR2.CD36.CD38.CD48.CD84.CDK12.CDK13.CDK14.CDK4.CDKN1B.CE LF5.CERS3.CFLAR.CHD3.CHD5.CHMP4C.CHRNB2.CLEC2D.CLN8.CLSPN.CMKLR1.COMMD10.CORO2A.COX17.CPSF 7.CREB1.CREB5.CSF2RA.CSRNP3.CTC1.CTH.CTSB.CXCL14.CYCS.CYLD.CYTH1.DAK.DCAF6.DCN.DENND4A.DFFA.DHX36.DHX58.DIMT1.DIO2.DKC1.DLX1.DLX6.DNAJB5.DNAJC16.DTX4.DUOX2.DUXA.DVL3.DYRK1A.E2F3.EFNA5.EGR2. EHD1.EIF2A.EIF4B.EIF4E.EIF4EBP2.EIF5.ELAVL1.ELFN2.ELK1.ENSA.ENS G00000157654.ENS G00000173575.EP300.EPB41L5.EPHA6.EPHB2.EPS15.ERCC1.EREG.ERLIN2.ERN2.ESCO2.ETF1.EZH1.FADS1.FAM101B.FAM134C.FAM168A.FAM208A.FAM212B.FBXL5.FBXO6.FBXW11.FCRL2.FGFR1.FKBP14.FKBP1B.FNDC5.FOXD3.FOK2.FOXO4.FOXP1.FRAT2.FRMD6.FSHB.FTO.FZD4.GABRA4.GABRB3.GABRG2.GADD45B.GALP.GALR2.GATA D1.GATA D2B.GCM2.GDI1.GFPT1.GGNBP2.GIGYF2.GIT2.GJD4.GLE1.GLP1R.GLU D1.GNL3L.GOLPH3L.GOSR1.GPAM.GPD1L.GPR123.GPR155.GPR161.GPR182.GPR26.GRAP.GRASP.GRHL2.GRIN2B.GRIPAP1.GTF2H5.GTF2IRD2.GTF2IRD2B.HCAR1.HCFC1.HD AC8HEY2.HILPDA.HOOK3.HOXA2.HOXA9.HPSE2.HSP90B1.IFIT5.IGF2.IGF2BP1.IGFBPL1.IKZF2.IL13RA1.IL1A.IL7.IMPACT.ING4.INHBB.INPP5A.INPP5B.IPO5.IRAK1.IRAK2.IST1.ITGAX.ITGB3.ITIH5.ITIH6.JAM2.KALRN.KCNB1.KCNIP1.KCNJ10.KCTD20.KCTD9.KDF1.KDM5B.KIAA0319.KIAA1161.KIAA1715.KLF12.KMT2A.KMT2D.KPNA1.KREMEN1.KSR2.LAMC2.LARP1.LARS.LASP1.LDLR.LEPROT.LILRB1.LIMD1.LIN52.LRPAP1.LRRC27.LRRC38.LRRN2.LTBP2.MAMLD1.MAP4K4.MAPK13.MAPT.MARVELD3.MAVS.MBTD1.MDM4.MECP2.METAP1.MGRN1.MID1IP1.MIXL1.MLXIP.MMP14.MOB1B.MPZL1.MR1.MTA3.MTCH2.MTMR4.MUC4.MYB.MYLK3.MYO5A.MYOCD.MYPN.MZF1.NAF1.NCOR1.NEDD8.NEIL1.NEK2.NETO2.NEUROD6.NFAT5.NISCH.NKD1.NKX24.NLK.NLN.NLRP7.NME6.NMT2.NOS1.NOVA2.NPAT.NPR3.NR1D2.NR2F2.NRCAM.NRXN3.NTRK2.OLIG2.ONECUT2.OTUD3.OTUD7B.P2RX7.P2RY8.PA2G4.PAFAH1B1.PAFAH2.PAK3.PARD3.PARP16.PATZ1.PAX5.PDAP1.PDCD4.PDE1C.PDE4C.PDE7A.PDIA6.PDK4.PDLIM5.PDP1.PEA15.PERP.PI15.PIAS2.PIGR.PIK3AP1.PIK3R1.PIK3R5.PIRT.PITPNM2.PKHD1.PKMYT1.PKP4.PLAG1.PLEKHA1.PLEKHG4B.PL P2.PLXNC1.POLDIP3.POLH.POLR2E.POU2F1.POU3F2.PPARGC1A.PPFIA3.PPP1R13B.PPP2R2A.PRDM11.PRICKLE2.PRKAR1A.PRKAR2B.PRKCA.PRKCB.PRR11.PRRT2.PSAPL1.PSD3.PTCH1.PTGFR.PTGFS.PTK6.PTP4A1.PTPRN2.PURA.PVRL2.RAB11A.RAB12.RAB29.RAB3B.RAB7A.RAD23B.RAD51.RANBP9.RAP1GAP2.RASGEF1B.RASIP1.RASSF8.RBL1.RBPM S2.RC3H1.RHBDD1.RIMS2.RIOK2.RND2.RNF141.RNF146.RNF165.RORB.RQCD1.RRM2.RRP1B.RSU1.RUNX3.S1PR3.SAMD8.SAMHD1.SAP30L.SBNO1.SCIN.SCN2B.SEH1L.SEMA3A.SEMA4F.SENP6.SETD5.SETD7.SGMS1.SH3BGRL.SH3GLB1.SH3TC2.SHC4.SIN3A.SKP1.SLA.SLAIN2.SLC20A1.SLC20A2.SLC24A2.SLC30A5.SLC35B4.SLC38A3.SLC6A4.SLC8A1.SLITRK2.SMAD4.SMARCC2.SMARCD1.SMC3.SOC57.SOGA1.SORCS3.SP1.SP5.SPIB.SPN.SPOCK1.SPOPL.SPTLC2.SREK1.SRGAP3.SRSF2.SRSF3.SSR1.SSX1.ST7L.STAR.STAT4.STK39-STOX1 STRADA.STX1B.STX3.STX5.STYXL1.SUFU.SUMO1.SUSD5.SUV39H2.SYNGR1.SYNJ2BP.SYNPO2L.SYP.TACR1.TADA1.TAF5L.TBC1D13.TBC1D14.TBC1D22B.TBX15.TEAD1.TEK.TESK2.TET3.TEX2.TGFBR1.TGIF2.THAP8.TIMM50.TLK2.TMBIM4.TMEM108.TMEM170B.TMEM64.TMX3.TNC.TNF.TNFS F8.TNPO3.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.TP53INP2.TPBG.TRABD2B.TRAF6.TRL1.TRIM72.TRNAU1AP.TSPAN11.TSPYL5.TTC26.UBE2J1.UBXN2B.ULK2.UNKL.UPF1.US H1C.US H2A.USP13.UST.VAMP7.VAV2.VEGFA.VEZF1.V	GO

			HL.VIPAS39.WDR36.WLS.WTAP.XBP1.ZADH2.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZC3H14.ZC3HAV1.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF346.ZNF347.ZNF365.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZNF84.ZNF865.ZW10.ZYG11A	
Regulation of metabolic process	402/6516	0.00032	ACER2.ACVR1B.ADAM19.ADARB1.ADIPOR2.ADORA2A.AHI1.AICDA.ANKRD6.AOC3.APOPT1.ARAF.ARL6IP1.ARRB1.A.TCAY.ATF5.ATOH8.ATP6V1H.ATXN3.BACH2.BARD1.BASP1.BDNF.BHLHE40.BLZF1.BTRC.C12orf5.C2.CALCR.CAMK4.CAMTA1.CAST.CBL.CBX2.CBX3.CCND2.CCR2.CD36.CD38.CDK12.CDK13.CDK4.CDKN1B.CELF5.CERS3.CFLAR.CHD3.CHD5.CHRNB2.CLN8.CLSPN.CMKLR1.COMMD10.COX17.CPSF7.CREB1.CREB5.CSRNP3.CTC1.CTH.CYCS.CYLD.CYP4A11.DCAF6.DCN.DENND4A.DFFA.DHX36.DIMT1.DIO2.DKC1.DLX1.DLX6.DNAJB5.DUXA.DVL3.DYRK1A.E2F3.EFNA5.EGR2.EIF2A.EIF4B.EIF4E.EIF4EBP2.EIF5.ELAVL1.ELFN2.ELK1.ENSA.ESNG00000173575.EP300.EPB4L5.EPHB2.EPS15.ERCC1.EREG.ERLIN2.ERN2.ESCO2.ETF1.EZH1.FADS1.FAM168A.FAM208A.FAM212B.FBXL5.FBXW11.FKBP1B.FOXD3.FOXK2.FOXO4.FOXP1.FSHB.FZD4.GADD45B.GALR2.GATA1.GATA2B.GCM2.GFPT1.GGNBP2.GIGYF2.GLE1.GNL3L.GPAM.GPD1L.GRHL2.GRIN2B.GTF2H5.GTF2IRD2.GTF2IRD2B.HCFC1.HDAC8HEY2.HOXA2.HOXA9.HSP90B1.IGF2.IGF2BP1.IKZF2.IL1A.IL7.IMPACT.ING4.INHBB.INPP5B.IPO5.IRAK1.IRAK2.IST1.ITGB3.ITYH5.ITYH6.KCTD20.KDM5B.KLF12.KMT2A.KMT2D.KPNA1.KSR2.LACTB.LARP1.LARS.LDLR.LILRB1.LIMD1.LRPAP1.MAMLD1.MAP4K4.MAPK13.MAPT.MARVELD3.MAVS.MBTD1.MDM4.MECP2.METAP1.MID1IP1.MIXL1.MLXIP.MMP14.MOB1B.MTA3.MTMR4.MYB.MYOC.D.MZF1.NAF1.NCOR1.NEDD8.NEIL1.NEK2.NEUROD6.NFAT5.NKD1.NKX24.NLK.NLN.NLRP7.NOS1.NOVA2.NPAT.NPR3.NR1D2.NR2F2.NTRK2.OLIG2.ONECUT2.OPA3.OTUD7B.P2RX7.PA2G4.PAFAH1B1.PAK3.PAN2.PARD3.PARP16.PATZ1.PAX5.PDCD4.PDK4.PDP1.PEPA15.PERP.PI15.PIAS2.PIK3R1.PIK3R5.PKHD1.PKMYT1.PLAG1.POLDIP3.POLH.POLR2E.POU2F1.POU3F2.PPARGC1A.PPP2R2A.PRDM11.PRKAR1A.PRKAR2B.PRKCA.PRKCB.PSAPL1.PTCH1.PTGFR.PTGIS.PTK6.PURA.RAB12.RAB29.RAB7A.RAD23B.RAD51.RANBP9.RASIP1.RBL1.RBPM2.RC3H1.RHBDD1.RIMS2.RIOK2.RNF141.RNF165.RORB.RQCD1.RRM2.RRP1B.RUNX3.SAMD7.SAMD8.SAP30L.SBNO1.SEMA3A.SETD5.SETD7.SH3GLB1.SHC4.SIN3A.SLC35B4.SLC38A3.SLC6A4.SMAD4.SMARCC2.SMARCD1.SMC3.SOC57.SOGA1.SP1.SP5.SPIB.SPN.SPOCK1.SPOPL.SPTLC2.SREK1.SRSF2.SRSF3.SSX1.STAR.STAT4.STK39.STOX1.STRADA.STX1B.STX5.STYXL1.SUFU.SUMO1.SUV39H2.SYNJ2BP.TADA1.TAF5L.TBC1D14.TBX15.TEAD1.TEK.TET3.TGFBR1.TGIF2.THAP8.TLK2.TNC.TNF.TNF_SF8.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.TP53INP2.TRABD2B.TRAF6.TRNAU1AP.TSPYL5.UBE2J1.UBXN2B.UNKL.UPF1.USP13.VAV2.VEGFA.VEZF1.VHL.VIPAS39.WTAP.XBP1.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZC3H14.ZC3HAV1.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF365.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZNF84.ZNF865.ZYD11A	GO
Regulation of biosynthetic process	278/4337	0.0014	ACER2.ACVR1B.ADIPOR2.ADORA2A.AHI1.AICDA.ARRB1.ATF5.ATOH8.ATXN3.BACH2.BASP1.BHLHE40.BLZF1.BTRC.C12orf5.CAMK4.CAMTA1.CBL.CBX2.CBX3.CCR2.CD36.CD38.CDK12.CDK13.CDK4.CDKN1B.CERS3.CFLAR.CHD3.CHD5.CMKLR1.COMMD10.CREB1.CREB5.CSRNP3.CTC1.CTH.CYLD.DCAF6.DCN.DENND4A.DHX36.DIO2.DKC1.DLX1.DLX6.DNAJB5.DUXA.DVL3.E2F3.EGR2.EIF2A.EIF4B.EIF4E.EIF4EBP2.EIF5.ELAVL1.ELK1.ESNG00000173575.EP300.EREG.ERLIN2.ERN2.ESCO2.ETF1.EZH1.FADS1.FAM208A.FBXW11.FOXP1.FSHB.FZD4.GALR2.GATA1.GATA2B.GCM2.GIGYF2.GLE1.GNL3L.GPAM.GRHL2.GTF2H5.GTF2IRD2.GTF2IRD2B.HCFC1.HDAC8HEY2.HOXA2.HOXA9.IGF2.IGF2BP1.IKZF2.IL1A.IMPACT.ING4.INHBB.IRAK1.IRAK2.ITGB3.KDM5B.KLF12.KMT2A.KMT2D.LARP1.LDLR.LILRB1.LIMD1.MAMLD1.MAPK13.MAVS.MBTD1.MDM4.MECP2.METAP1.MID1IP1.MIXL1.MLXIP.MTA3.MYB.MYOC.D.MZF1.NAF1.NCOR1.NEDD8.NEIL1.NEK2.NEUROD6.NFAT5.NKD1.NKX24.NLK.NLN.NLRP7.NOS1.NOVA2.NPAT.NPR3.NR1D2.NR2F2.NTRK2.OLIG2.ONECUT2.OPA3.OTUD7B.P2RX7.PA2G4.PAFAH1B1.PAK3.PAN2.PARD3.PARP16.PATZ1.PAX5.PDCD4.PDK4.PDP1.PEPA15.PERP.PI15.PIAS2.PIK3R1.PIK3R5.PKHD1.PKMYT1.PLAG1.POLDIP3.POLH.POLR2E.POU2F1.POU3F2.PPARGC1A.PPP2R2A.PRDM11.PRKAR1A.PRKAR2B.PRKCA.PRKCB.PSAPL1.PTCH1.PTGFR.PTGIS.PTK6.PURA.RAB12.RAB29.RAB7A.RAD23B.RAD51.RANBP9.RASIP1.RBL1.RBPM2.RC3H1.RHBDD1.RIMS2.RIOK2.RNF141.RNF165.RORB.RQCD1.RRM2.RRP1B.RUNX3.SAMD7.SAMD8.SAP30L.SBNO1.SEMA3A.SETD5.SETD7.SH3GLB1.SHC4.SIN3A.SLC35B4.SLC38A3.SLC6A4.SMAD4.SMARCC2.SMARCD1.SMC3.SOC57.SOGA1.SP1.SP5.SPIB.SPN.SPOCK1.SPOPL.SPTLC2.SREK1.SRSF2.SRSF3.SSX1.STAR.STAT4.STK39.STOX1.STRADA.STX1B.STX5.STYXL1.SUFU.SUMO1.SUV39H2.SYNJ2BP.TADA1.TAF5L.TBC1D14.TBX15.TEAD1.TEK.TET3.TGFBR1.TGIF2.THAP8.TLK2.TNC.TNF.TNF_SF8.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.TP53INP2.TRABD2B.TRAF6.TRNAU1AP.TSPYL5.UBE2J1.UBXN2B.UNKL.UPF1.USP13.VAV2.VEGFA.VEZF1.VHL.VIPAS39.WTAP.XBP1.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZC3H14.ZC3HAV1.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF365.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZNF84.ZNF865.ZYD11A	GO

	ZF1.NAF1.NCOR1.NEDD8.NEK2.NEUROD6.NFAT5.NK24.NLK.NLN.NOS1.NPAT.NR1D2.NR2F2.OLIG2.ONECUT2.OTUD7B.P2RX7.PA2G4.PAK3.PATZ1.PAX5.PDCD4.PDK4.PDP1.PIAS2.PIK3R1.PKHD1.PLAG1.POLDIP3.POU2F1.POU3F2.PPARGC1A.PRDM11.PRKAR1A.PRKCB.PTCH1.PTGIS.PURA.RBL1.RBPMs2.RC3H1.RNF141.RNF165.RORB.RQCD1.RRM2.RRP1B.RUNX3.SAMD8.SAP30L.SBNO1.SETD5.SETD7.SIN3A.SLC35B4.SLC38A3.SMAD4.SMARCC2.SMARCD1.SMC3.SOGA1.SP1.SP5.SPIB.SPN.SRSF2.SSX1.STAR.STOX1.SUFU.SUMO1.SUV39H2.TADA1.TAF5L.TBX15.TEAD1.TET3.TGFBR1.TGIF2.THAP8.TNF.TNFSF8.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.TP53INP2.TRAF6.TRNAU1AP.UBE2J1.UNKL.UPF1.USP13.VEGFA.VEZF1.VHL.VIPAS39.XBP1.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF365.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZNF84.ZNF865			
Regulation of RNA metabolic process	253/3890	0.0014	ACVR1B.ADORA2A.AHI1.AICDA.ARRB1.ATF5.ATOH8.ATXN3.BACH2.BARD1.BASP1.BHLHE40.BLZF1.BTRC.CAMK4.CAMTA1.CBL.CBX2.CBX3.CD36.CD38.CDK12.CDK13.CDKN1B.CELF5.CERS3.CFLAR.CHD3.CHD5.CMKLR1.COMMD10.CPSF7.CREB1.CREB5.CSRNP3.CTH.CYLD.DCAF6.DCN.DENND4A.DHX36.DIMT1.DKC1.DLX1.DLX6.DNAJB5.DUXA.DVL3.DYRK1A.E2F3.EGR2EIF2A.ELAVL1.ELK1.ENS00000173575.EP300.EREG.ERLIN2.ERN2.EZH1.FADS1.FAM208A.FBXW11.FOXD3.FOXK2.FOXO4.FOXP1.FSHB.FZD4.GALR2.GATAD1.GATAD2B.GCM2.GIGYF2.GRHL2.GTF2H5.GTF2IRD2.GTF2IRD2B.HCFC1.HDAC8HEY2.HOXA2.HOXA9.IGF2.IGF2BP1.IKZF2.IL1A.IMPACT.ING4.IRAK1.IRAK2.KDM5B.KLF12.KMT2A.KMT2D.LARP1.LILRB1.LIMD1.MAMLD1.MAPK13.MAVS.MBTD1.MDM4.MECP2.MIXL1.MLXIP.MTA3.MYB.MYOD.MZF1.NAF1.NCOR1.NEDD8.NEUROD6.NFAT5.NKX24.NLK.NOS1.NOVA2.NPAT.NR1D2.NR2F2.OLIG2.ONECUT2.OTUD7B.PA2G4.PATZ1.PAX5.PDCD4.PIAS2.PIK3R1.PKHD1.PLAG1.POU2F1.POU3F2.PPARGC1A.PRDM11.PRKAR1A.PRKCB.PTCH1.PTGIS.PURA.RBL1.RBPMs2.RC3H1.RIOK2.RNF141.RNF165.RORB.RQCD1.RRM2.RRP1B.RUNX3.SAP30L.SBNO1.SETD5.SETD7.SIN3A.SLC38A3.SMAD4.SMARCC2.SMARCD1.SP1.SP5.SPIB.SREK1.SRSF2.SRSF3.SSX1.STAT4.STOX1.SUFU.SUMO1.SUV39H2.TADA1.TAF5L.TBX15.TEAD1.TET3.TGFBR1.TGIF2.THAP8.TNF.TNFSF8.TNRC6B.TNRC6C.TP53.TP53INP1.TP53INP2.TRAF6.UNKL.UPF1.USP13.VEGFA.VEZF1.VHL.VIPAS39.WTAP.XBP1.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZC3HAV1.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZNF84.ZNF865	GO
Regulation of transcription. DNA-templated	229/3661	0.0186	ACVR1B.ADORA2A.AHI1.AICDA.ARRB1.ATF5.ATOH8.ATXN3.BACH2.BASP1.BHLHE40.BLZF1.BTRC.CAMK4.CAMTA1.CBL.CBX2.CBX3.CD36.CD38.CDK12.CDK13.CDKN1B.CERS3.CFLAR.CHD3.CHD5.CMKLR1.COMMD10.CREB1.CREB5.CSRNP3.CTH.CYLD.DCAF6.DCN.DENND4A.DHX36.DLX1.DLX6.DNAJB5.DUXA.DVL3.E2F3.EGR2EIF2A.ELK1.ENS0000173575.EP300.EREG.ERLIN2.ERN2.EZH1.FADS1.FAM208A.FBXW11.FOXD3.FOXK2.FOXO4.FOXP1.FSHB.FZD4.GALR2.GATAD1.GATAD2B.GCM2.GRHL2.GTF2H5.GTF2IRD2.GTF2IRD2B.HCFC1.HDAC8HEY2.HOXA2.HOXA9.IGF2.IKZF2.IL1A.IMPACT.ING4.IRAK1.IRAK2.KDM5B.KLF12.KMT2A.KMT2D.LILRB1.LIMD1.MAMLD1.MAPK13.MAVS.MBTD1.MDM4.MECP2.MIXL1.MLXIP.MTA3.MYB.MYOCD.MZF1.NCOR1.NEDD8.NEUROD6.NFAT5.NKX24.NLK.NOS1.NPAT.NR1D2.NR2F2.OLIG2.ONECUT2.OTUD7B.PA2G4.PATZ1.PAX5.PDCD4.PIAS2.PIK3R1.PKHD1.PLAG1.POU2F1.POU3F2.PPARGC1A.PRDM11.PRKAR1A.PRKCB.PTCH1.PTGIS.PURA.RBL1.RBPMs2.RNF141.RNF165.RORB.RQCD1.RRM2.RRP1B.RUNX3.SAP30L.SBNO1.SETD5.SETD7.SIN3A.SLC38A3.SMAD4.SMARCC2.SMARCD1.SP1.SP5.SPIB.SS1.STAT4.STOX1.SUFU.SUMO1.SUV39H2.TADA1.TAF5L.TBX15.TEAD1.TET3.TGFBR1.TGIF2.THAP8.TNF.TNFSF8.TP53.TP53INP1.TP53INP2.TRAF6.UNKL.USP13.VEGFA.VEZF1.VHL.VIPAS39.XBP1.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZEB1.ZFP14.ZFP30.ZFP91	GO

			1.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZNF84.ZNF865	
Positive regulation of RNA metabolic process	113/1596	0.0193	ACVR1B.AHI1.AICDA.ARRB1.ATF5.ATOH8.BTRC.CAMK4.CAMTA1.CD38.CDK12.CDK13.CREB1.CREB5.CSRNP3.DCAF6.DCN.DHX36.DIMT1.DLX1.DVL3.DYRK1A.E2F3.EGR2.EIF2A.ELK1.EP300.ERLIN2.EZH1.FBXW11.FOXD3.FOXK2.FOXO4.FSHB.FZD4.GALR2.GCM2.GIGYF2.GRHL2.HCFC1HEY2.HOXA2.IGF2.IKZF2.IL1A.ING4.IRAK1.KMT2A.KMT2D.LILRB1.MAVS.MECP2.MIXL1.MLXIP.MYB.MYOCD.MZF1.NEUROD6.NFAT5.NOS1.NPAT.NR1D2.NR2F2.ONECUT2.PATZ1.PAX5.PIAS2.PIK3R1.PLAG1.POU2F1.POU3F2.PPARGC1A.PRKCB.PTCH1.RBL1.RC3H1.RIOK2.RORB.RQCD1.RRP1B.RUNX3.SETD7.SIN3A.SLC38A3.SMAD4.SMARCC2.SMARCD1.SP1.SPIB.STAT4.TADA1.TAF5L.TEAD1.TET3.TGFB1.TNF.TNFSF8.TNRC6B.TNRC6C.TP53.TP53INP1.TP53INP2.TRAF6.UPF1.VEGFA.VEZF1.VHL.XBP1.ZC3HAV1.ZEB1.ZFX.ZNF31.ZNF711	GO
Alternative splicing	598/10223	2.19x10 ⁻⁶	AAK1.ABCB9.ABHD12.ACER2.ACSL4.ACVR1B.ADAM19.ADAM22.ADARB1.AGAP1.AHI1.AICDA.AIFM2.AIFM3.AKIRIN1.AKR1D1.ALCAM.ALDH5A1.ALOX15B.ALPK1.ALS2CR12.AMN1.AMOTL1.ANKRD12.ANKRD6.AOC3.AP1G1.ARAF.ARPIP2.ARHGEF10L.ARHGEF28.ARL6IP1.ARMC1.ARRB1.ARSA.ASTN2.ATAD3B.ATAT1.ATCAY.ATOH8.ATP2B3.ATP6V1H.ATP8A2.ATXN3.B3GNT6.BARD1.BASP1.BDNF.BEST3.BLZF1.BORA.BSDC1.BTLA.BTRC.BZRAP1.C19orf12.C1orf177.C1orf198.C2CD2L.C5orf38.C8orf59.CABP4.CACNA1C.CACNA1G.CACNB3.CALCR.CALML4.CAMK2G.CAMSAP1.CAMTA1.CAPZB.CAST.CBX2.CCDC142.CCDC25.CCND2.CCR2.CD22.CD36.CD38.CD48.CD84.CDK12.CDK13.CDK14.CDK4.CELF5.CEP68.CERS5.CFLAR.CHD3.CHKA.CLEC2D.CЛИC5.CLSPN.CLVS1.CMKLR1.CNTLN.CNTNAP2.CORO2B.CPD.CPSF7.CREB1.CREB5.CROT.CSF2RA.CSRNP3.CTC1.CTH.CYLD.CYP20A1.CYP4A11.CYP4A22.CYP4X1.CYTH1.DAK.DCAF10.DCAF5.DCAF6.DCN.DDOST.DENNND4A.DENND5B.DFFA.DHX36.DKC1.DLX1.DLX6.DNAJB5.DNAJC16.DSG1.DTX4.DUSP13.DVL3.DYRK1A.DZANK1.E2F3.EGR2EIF4B.ELAVL1.ELK1.EMC1.ESNG00000157654.ESNG00000173575.ENTP1.D1.EPB41L5.EPHA6.EPHB2.EPS15.ERCC1.ERLIN2.ESCO2.ETF1.EZH1.FADS1.FADS6.FAM102B.FAM126A.FAM133B.FAM134C.FAM168A.FAM168B.FAM208A.FAM227A.FAM32A.FAM63B.FAM73A.FAM73B.FBXL5.FBXO9.FBXW11.FCRL2.FCRL5.FKBP1B.FNDC5.FOPNL.FOXK2.FOXO4.FOXP1.FREM2.FRMD6.FTO.GABRB3.GABRG2.GALNT1.GALP.GDPD1.GFPT1.GGNBP2.GGT6.GIGYF2.GIT2.GK5.GLB1L.GLE1.GLT1D1.GLU1.GLYCTK.GOLGA7.GOLPH3L.GOSR1.GPATCH2L.GPATCH8.GPR107.GPR123.GPR161.GRAMD1B.GRASP.GREB1.GRHL2.GRIPAP1.GSG1L.GTF2IRD2.GTF2IRD2B.HCF1.C1.HDAC8.HEATR3.HN1L.HNRNPH3.HPSE2.ICA1L.IF15.IGF2.IGF2BP1.IKZF2.IL13RA1.IL7.IMPACT.ING4.INPP5B.IPO5.IRAK1.ISCU.IST1.ITGB3.ITIH5.JAM2.KALRN.KANK4.KCND1.KCNJ3.KCTD20.KCTD3.KDM5B.KIAA0319.KIAA1715.KIF1A.KLF12.KMT2A.KMT2D.KREMEN1.KSR2.LACTB.LAMC2.LARP1.LARP7.LARS.LASP1.LDLR.LILRB1.LRRC27.LRRC74B.MAMDCC2.MAMLD1.MAP4K4.MAPK13.MAP12.MARC2.MARCH6.MAVS.MBTD1.MDGA1.MDM4.MECP2.METTL2A.MGRN1.MGST2.MIXL1.MLC1.MLXIP.MMP16.MOB1B.MPZL1.MR1.MRPL4.MTA3.MTUS2.MUC4.MYB.MYLK3.MYO5A.MYOCD.MYO53.MYPPN.MZF1.NAF1.NBPF3.NCAM2.NCOR1.NDC1.NEK2.NEMF.NETO2.NFASC.NFAT5.NIPAL3.NISCH.NLRP7.NME6.NMNAT2.NOS1.NPR3.NR2F2.NRCAM.NRXN3.NSL1.NTRK2.NUBPL.NWD1.OSBPL9.OTUD7B.P2RX7.PA2G4.PAFAH1B1.PAK3.PAN2.PANK1.PARD3.PARD3B.PARP11.PARP16.PATZ1.PAX5.PCYOX1.PCYT1B.PDCD4.PDDC1.PDE1C.PDE4C.PDE7A.PDIA6.PDLIM5.PDP1.PEA15.PGPEP1.PHF3.PIAS2.PIK3AP1.PIK3R1.PIK3R5.PITPNM2.PKHD1.PKMYT1.PKP4.PLAG1.PLEKHA1.PLEKHM3.PLOD1.PLP2.PLXDC1.PNPO.POF1B.POLDIP3.POLH.POM121.POM121C.POU2F1.PPARGC1A.PPFIA3.PPM1K.PPP1R3A.PPPP2R2A.PRDM11.PRKAR1A.PRKCB.PRR3.PRRT2.PSD3.PSTPIP2.PTCH1.PTGFR.PTK6.PTPN2.PVRL2.PXMP4.PYCRL.R3HCC1L.RAB11A.RAB29.RAB3IP.RAD23B.RANBP9.RAP1GAP2.RASGEF1B.RASSF8.RBL1.RBM48.RBPM52.RC3H1.RHBDD1.RIMS2.RINL.RIOK2.RNF135.RNF141.RNF146.RNF165.RPRD2.RQCD1.RRM2.RRP1B.RSU1.RUND3C3B.RUNX3.SAMD14.SAMD8.SAMHD1.SAP30L.SAYS1.SBF1.SBNO1.SCARA3.SCD5.SCIN.SCRN3.SD	KW

			HD.SEC22C.SEH1L.SEMA4F.SENP6.SETD5.SGMS1.SH3GLB1.SH3TC2.SHC4.SIGLEC10.SIRPB2.SKP1.SLA.SLC12A5.SLC16A14.SLC1A2.SLC22A2.SLC24A2.SLC25A26.SLC25A30.SLC30A5.SLC35A2.SLC35B4.SLC35D1.SLC35E1.SLC39A14.SLC43A2.SLC4A4.SLC6A4.SLC8A1.SLITRK2.SMARCC2.SMARCD1.SMC2.SNAP23.SNRPD3.SNX7.SOCS7.SOGA1.SP1.SPIB.SPTLC3.SREK1.SRGAP3.SRSF2.SRSF3.SSR1.ST6GAL1.ST6GAL2.ST7L.STK39.STOX1 STRADA.STX1B.STX3.STX5.STYXL1.SUFU.SUMO1.SUV39H2.SV2B.SYNGR1.SYNPO2L.SYP.SZRD1.TACR1.TAF5L.TBC1D13.TBC1D14.TBX15.TDRP.TEAD1.TECPR1.TEK.TESK2.TET3.TEX2.TGFBR1.TGIF2.TIMM50.TLK2.TMC7.TMED4.TMEM108.TMEM116.TMEM168.TMEM245.TMEM44.TMEM64.TMEM87A.TMPPE.TMPRSS11A.TMX3.TNC.TNPO3.TNRC6A.TNRC6B.TNRC6C.TNS1.TP53.TP53INP1.TRIM47.TRIM66.TRIM72.TRNAU1AP.TSPEAR.TTC13.TTC26.TUFT1.UBE3B.UNKL.UPF1.USB1.USH1C.USH2A.USP13.USP31.USP49.VAMP7.VAV2.VEGFA.VHL.VIPAS39.VPS53.VTA1.VTI1A.WLS.WTAP.XBP1.XPNPEP3.XXYLT1.ZADH2.ZBTB20.ZBTB8A.ZC3H14.ZC3HAV1.ZCCHC3.ZEB1.ZFP91.ZFR2.ZFX.ZHX3.ZMYM4.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF335.ZNF33A.ZNF346.ZNF347.ZNF365.ZNF460.ZNF483.ZNF500.ZNF555.ZNF557.ZNF568.ZNF625.ZNF711.ZNF773.ZNF791.ZNF793.ZNF805.ZW10.ZYG11A	
Response to oxygen levels	33/321	0.0202	C12orf5.CACNB3.CBL.CD38.CDK4.CDKN1B.CFLAR.CHRNB2.CREB1.EP300.HILPDA.HSP90B1.IRAK1.LIMD1.MDM4.MECP2.MMP14.MYB.MYOCD.NOS1.PLOD1.PPARGC1A.PTGIS.SLC6A4.SLC8A1.SMAD4.STOX1.SUV39H2.TEK.TMEM199.TP53.VEGFA.VHL	GO
Nitrogen compound metabolic process	469/8349	0.0277	AAK1.ABHD12.ACER2.ACSL4.ACVR1B.ADAM19.ADAM22.ADARB1.ADOARA2A.ADPRH.ADRBK2.AICDA.ALDH5A1.ALPK1.AOC3.APOBEC3C.ARAF.ARRB1.ARSA.ATAT1.ATF5.ATOH8.ATXN3.B3GALT6.B3GNT6.B4GALT5.BACH2.BARD1.BHLHE40.BTRC.C2.CAMK2G.CAMK4.CAMTA1.CBL.CBX2.CBX3.CD36.CD38.CDK12.CDK13.CDK14.CDK4.CDKN1B.CELF5.CERS3.CERS5.CFLAR.CHD3.CHD5.CHKA.CHMP4C.CLN8.CLSPN.COMMD10.CPD.CPM.CPSF7.CREB1.CREB5.CROT.CSF2RA.CSRNP3.CTC1.CTH.CTSB.CYCS.CYLD.CYP3A4.DCAF10.DCAF5.DCAF6.DCN.DDOST.DDX51.DEGS1.DENNDA4.DFFA.DHTKD1.DHX36.DIMT1.DIO2.DKC1.DLX1.DNPEP.DTX4.DUOX2.DUSP13.DUXA.DYRK1A.E2F3.EGR2.EIF2A.EIF4B.EIF4E.EIF4EBP2.EIF5.ELAVL1.ELK1.ELOVL3.ESNG00000173575.ENTPD1.EP300.EPHA6.EPHB2.ERCC1.EREG.ERLIN2.ERN2.ESCO2.ETF1.EZH1.FAM208A.FAM63B.FBXL5.FBXO6.FBXO9.FBXW11.FGFRL1.FKBP14.FKBP1B.FMO2.FOXD3.FOXK2.FOXO4.FOXP1.FSHB.FTO.FUT1.GALNT1.GALNT6.GAN.GATAD2B.GCM2.GDPD1.GEMIN8.GFPT1.GGT6.GIGYF2.GINS1.GLUD1.GLYCTK.GOLGA7.GOLGA7B.GPAM.GPD1L.GRAP.GRHL2.GRIN2B.GTF2H5.GTF2IRD2.GTF2IRD2B.H6PD.HCFC1.HDAC8HEY2.HNRNPH3.HOXA2.HOXA9.HPSE2.HSP90B1.IBA57.ICMT.IGF2.IKZF2.ING4.IRAK1.IRAK2.ISCU.ITIH5.ITIH6.KALRN.KCTD9.KDM5B.KLF12.KLHDC7A.KMT2A.KMT2D.KPNA1.KSR2.LACTB.LARP1.LARP7.LARS.LDLR.LIMD1.LIN52.MAMLD1.MAP4K4.MAPK13.MAPT.MARC2.MARCH6.MBD6.MBTD1.MDM4.MECP2.METAP1.METTL2A.MGAT2.MGAT3.MGRN1.MGST2.MIXL1.MLXIP.MMP13.MMP14.MMP16.MRPL27.MRPL36.MRPL4.MRPL57.MTA3.MTMR4.MUC4.MYB.MYLK3.MYOCD.MZF1.NAF1.NCOR1.NDUFA4.NEDD8.NEIL1.NEK2.NEUROD6.NFAT5.NLK.NLN.NME6.NMNAT1.NMNAT2.NMT2.NOS1.NOVA2.NPAT.NR1D2.NR2F2.NTRK2.NWD1.OLIG2.ONECUT2.OTUD3.OTUD7B.P2RX7.PA2G4.PAFAH1B1.PAK3.PAN2.PANK1.PAPPA.PARP16.PATZ1.PAX5.PCYOX1.PCYT1A.PCYT1B.PDE4C.PDE7A.PDIA6.PDK4.PDP1.PEA15.PERP.PGPEP1.PHF3.PIAS2.PIK3R1.PIPOX.PKMYT1.PLAG1.PLOD1.PNPO.POLDIP3.POLH.POLR2E.POU2F1.POU3F2.PPARGC1A.PPM1K.PPP2R2A.PRDM11.PRKCA.PRKCB.PSAPL1.PSMB6.PTAR1.PTCH1.PTGIS.PTK6.PTP4A1.PTPRN2.PURA.PYCRL.RAB11A.RAB12.RAB3B.RAB7A.RAD23B.RAD51.RAD54L.RANBP9.RBL1.RC3H1.RHBDD1.RIOK2.RNASEH1.RNF135.RNF141.RNF146.RNF165.RORB.RPP14.RPRD2.RQCD1.RRM2.RRP1B.RUNX3.SAMD8.SAMHD1.SAP30L.SBF1.SCD5.SCRN3.SDF2.SDHD.SENP6.SEPHS2.SETD5.SETD7.SGMS1.SIN3A.SKP1.SLA.SLC19A3.SLC25A15.SLC35D1.SMAD4.SMARCC2.SMC3.SNRPD3.SOCS7.SP1.SP5.SPIB.SPOPL.SPTLC2.SPTLC3.SREK1.SREK1IP1.SRSF2.SRSF3.SSX1.ST3GAL3.ST6GAL1.ST6GAL2.STAT4.STK39.STOX1.STYXL1.SUFU.SUMO1.SUV39H2.TADA1.TAF5L.TBX15.TEAD1.TEK.TESK2.TET3.TEX2.TGFBR1.TGIF2.THUMPD3.TIMM50.TLK2.TMEM199.TMPRSS11A.TMX3.TNC.TNF.TP53.	GO

			TP53INP1.TP53INP2.TRABD2B.TRAF6.TRIM72.TRMT12.TRNAU1AP.TRPM7.TSR1.TTLL12.UBE2E3.UBE2J1.UBE3B.UBXN2B.ULK2.UNKL.UPF1.USB1.USP13.USP31.USP49.UST.UTP14C.VAPA.VEZF1.VHL.VIPAS39.WDR36.WTAP.XBP1.XPNPEP3.XXYLT1.ZBTB20.ZBTB4.ZBTB7A.ZBTB8A.ZDHHC22.ZDHHC23.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKS CAN1.ZMAT2.ZMYND8.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF365.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF805.ZNF84.ZNF865.ZYG11A	
DNA-binding transcription factor activity	125/1749	0.0102	ATF5.ATOH8.BACH2.BHLHE40.BLZF1.CAMTA1.CBL.CERS3.CREB1.CREB5.CSRNP3.DLX1.DLX6.DUXA.E2F3.EGR2.EL K1.EP300.EZH1.FOXD3.FOXK2.FOXO4.FOXP1.GATA1.GATA2B.GCM2.GRHL2.GTF2IRD2.GTF2IRD2B.HCFC1HEY2.HOXA2.HOXA9.IKZF2.KDM5B.KLF12.KMT2A.KMT2D.MECP2.MIXL1.MLXIP.MTA3.MYB.MYOCD.MZF1.NCOR1.NEUROD6.NFAT5.NKX24.NR1D2.NR2F2.OLIG2.ONECUT2.PA2G4.PATZ1.PAX5.PLAG1.POU2F1.POU3F2.PURA.RORB.RUNX3.SI N3A.SMAD4.SMARCC2.SP1.SP5.SPIB.STAT4.TAF5L.TBX15.TEAD1.TET3.TGIF2.THAP8.TP53.UNKL.VEZF1.XBP1.ZBTB20.ZBTB4.ZBTB7A.ZEB1.ZFP14.ZFP30.ZFP91.ZFX.ZHX2.ZHX3.ZKSCAN1.ZMYM4.ZNF131.ZNF160.ZNF182.ZNF189.ZNF229.ZNF25.ZNF317.ZNF331.ZNF335.ZNF33A.ZNF347.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF592.ZNF625.ZNF696.ZNF700.ZNF711.ZNF791.ZNF793.ZNF805.ZNF84	GO
Generic Transcription Pathway	93/ 1112	0.0024	AIFM2.BARD1.BDNF.C12orf5.CAMK2G.CAMK4.CBX2.CBX3.CCND2.CDK12.CDK13.CDK4.CDKN1B.CHD3.CREB1.CYCS. DLX6.EP300.GATA2B.GPAM.GRIN2B.GTF2H5HEY2.IRAK1.KDM5B.KMT2A.KMT2D.MAMLD1.MDM4.MMP13.MYB.NCO R1.NDUFA4.NR1D2.PAX5.PERP.POLR2E.PPARGC1A.PPP1R13B.PRKCB.PSMB6.RBL1.RORB.RQCD1.RRM2.RUNX3.SI N3A.SKP1.SMAD4.SMARCC2.SMARCD1.SP1.SUMO1.TEAD1.TGIF2.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.VEGF A.ZFP14.ZFP30.ZKSCAN1.ZNF160.ZNF189.ZNF25.ZNF317.ZNF331.ZNF33A.ZNF347.ZNF37A.ZNF426.ZNF430.ZNF440.Z NF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF625.ZNF696.ZNF700.ZN F711.ZNF773.ZNF791.ZNF793	Reactome
RNA Polymerase II Transcription	100/1233	0.0024	AIFM2.BARD1.BDNF.C12orf5.CAMK2G.CAMK4.CBX2.CBX3.CCND2.CDK12.CDK13.CDK4.CDKN1B.CHD3.CPSF7.CREB 1.CYCS.DLX6.EP300.GATA2B.GPAM.GRIN2B.GTF2H5HEY2.IRAK1.KDM5B.KMT2A.KMT2D.MAMLD1.MDM4.MMP13. MYB.NCOR1.NDUFA4.NR1D2.PAX5.PERP.POLDIP3.POLR2E.POU2F1.PPARGC1A.PPP1R13B.PRKCB.PSMB6.RBL1.R ORB.RPRD2.RQCD1.RRM2.RUNX3.SIN3A.SKP1.SMAD4.SMARCC2.SMARCD1.SNRPD3.SP1.SRSF2.SRSF3.SUMO1.TE AD1.TGIF2.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.VEGFA.ZFP14.ZFP30.ZKSCAN1.ZNF160.ZNF189.ZNF25.ZNF31 7.ZNF331.ZNF33A.ZNF347.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZNF454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500 .ZNF514.ZNF555.ZNF557.ZNF568.ZNF625.ZNF696.ZNF700.ZNF711.ZNF773.ZNF791.ZNF793	Reactome
Gene expression (Transcription)	106/1366	0.0034	AIFM2.BARD1.BDNF.C12orf5.CAMK2G.CAMK4.CBX2.CBX3.CCND2.CDK12.CDK13.CDK4.CDKN1B.CHD3.CPSF7.CREB 1.CYCS.DLX6.EP300.GATA2B.GPAM.GRIN2B.GTF2H5HEY2.IRAK1.KDM5B.KMT2A.KMT2D.MAMLD1.MDM4.MMP13. MTA3.MYB.NCOR1.NDC1.NDUFA4.NR1D2.PAX5.PERP.POLDIP3.POLR2E.POM121.POM121C.POU2F1.PPARGC1A.PP P1R13B.PRKCB.PSMB6.RBL1.RORB.RPRD2.RQCD1.RRM2.RUNX3.SAP30L.SIN3A.SKP1.SMAD4.SMARCC2.SMARCD1 .SNRPD3.SP1.SRSF2.SRSF3.SUMO1.TEAD1.TET3.TGIF2.TNRC6A.TNRC6B.TNRC6C.TP53.TP53INP1.VEGFA.ZFP14.Z FP30.ZKSCAN1.ZNF160.ZNF189.ZNF25.ZNF317.ZNF331.ZNF33A.ZNF347.ZNF37A.ZNF426.ZNF430.ZNF440.ZNF445.ZN F454.ZNF460.ZNF483.ZNF486.ZNF490.ZNF500.ZNF514.ZNF555.ZNF557.ZNF568.ZNF625.ZNF696.ZNF700.ZNF711.ZNF 773.ZNF791.ZNF793	Reactome

FDR. false discovery rate; GO. gene ontology; KW. keyword.