**Supplementary Figure 1.** WJMSC characterization. Flow cytometry analysis of WJMSC at passage 2 confirms the positive expression of CD90 and CD105 and the negative expression of CD31 and CD45. WJMSC: Wharton’s Jelly-derived mesenchymal stem cell; PLT: human platelet lysate; FBS: fetal bovine serum.

**Supplementary Figure 2.** Experimental timeline. The experimental timeline outlining the 8 weeks study period. 1 week after MI, EV product was administered IV 1 time a week for 6 weeks. Echo was completed at BSL, week 1, week 4, and week 8. PV loop and histology were completed at week 8. MI: Myocardial infarction; EV: extracellular vesicle.
### Supplementary Table 1. miRNA sequencing read counts

| PLT-MSC EVs miRNA | Average reads | FBS-MSC EVs miRNA | Average reads |
|-------------------|---------------|-------------------|---------------|
| hsa-mir-21        | 202389.7518   | hsa-mir-21        | 158216.3446   |
| hsa-let-7i        | 69472.48133   | hsa-let-7i        | 89320.84331   |
| hsa-mir-29a       | 67673.4987    | hsa-mir-143       | 73626.70747   |
| hsa-mir-143       | 61172.24088   | hsa-mir-29a       | 63852.83203   |
| hsa-mir-221       | 56561.60069   | hsa-let-7b        | 57850.62717   |
| hsa-mir-7641-2    | 48872.94607   | hsa-mir-146a      | 38678.20856   |
| hsa-mir-146a      | 44752.59332   | hsa-mir-221       | 34352.31489   |
| hsa-let-7b        | 31252.79406   | hsa-let-7e        | 29311.72114   |
| hsa-mir-34a       | 23614.31574   | hsa-mir-125a      | 24353.86806   |
| hsa-mir-148a      | 22504.8444    | hsa-mir-148a      | 21364.98916   |
| hsa-mir-31        | 18844.45639   | hsa-mir-7641-2    | 17675.02907   |
| hsa-let-7e        | 14091.18392   | hsa-mir-432       | 15963.76606   |
| hsa-mir-100       | 13718.98059   | hsa-mir-31        | 15519.82596   |
| hsa-mir-125a      | 13038.06673   | hsa-mir-382       | 15143.48741   |
| hsa-mir-23a       | 12389.41896   | hsa-mir-423       | 14856.98336   |
| hsa-mir-26b       | 10012.92436   | hsa-mir-100       | 14401.15169   |
| hsa-mir-155       | 9649.584589   | hsa-mir-23a       | 13075.9986    |
| hsa-mir-199b      | 9225.6143     | hsa-mir-191       | 11966.22352   |
| hsa-mir-191       | 8415.623922   | hsa-mir-320a      | 11142.41883   |
| hsa-mir-127       | 8230.132811   | hsa-mir-151a      | 8843.3987     |
| hsa-mir-27b       | 6838.826422   | hsa-mir-127       | 8800.054678   |
| hsa-mir-27a       | 6686.583678   | hsa-mir-409       | 8783.1678     |
| hsa-mir-409       | 6616.611011   | hsa-mir-155       | 8389.892111   |
| hsa-mir-503       | 6511.589522   | hsa-mir-27b       | 8371.643522   |
| hsa-mir-10a       | 6075.206989   | hsa-mir-99b       | 7442.533356   |
| hsa-mir-93        | 6002.5415     | hsa-mir-196b      | 7321.798678   |
| hsa-mir-151a      | 5770.942289   | hsa-mir-26b       | 6103.3089     |
| hsa-mir-432      | 5593.335011 | hsa-mir-30a      | 6029.036478 |
|------------------|-------------|-----------------|-------------|
| hsa-let-7g       | 5530.109289 | hsa-mir-30d     | 5995.4942   |
| hsa-mir-222      | 5337.405567 | hsa-mir-93      | 5929.749956 |
| hsa-mir-424      | 5289.317511 | hsa-mir-27a     | 5656.706067 |
| hsa-mir-25       | 5185.945856 | hsa-mir-34a     | 5588.682444 |
| hsa-mir-382      | 5033.314133 | hsa-mir-10a     | 5318.612633 |
| hsa-mir-196b     | 4991.435    | hsa-mir-222     | 5256.918233 |
| hsa-mir-654      | 4930.650933 | hsa-mir-134     | 5032.463556 |
| hsa-mir-30d      | 4565.347578 | hsa-mir-654     | 5005.345722 |
| hsa-mir-493      | 4552.016611 | hsa-mir-196a-2  | 4896.8769   |
| hsa-mir-99b      | 4482.341033 | hsa-mir-342     | 4733.303344 |
| hsa-mir-320a     | 4452.056733 | hsa-mir-125b-1  | 4614.000633 |
| hsa-mir-30a      | 4208.714022 | hsa-let-7g      | 4440.585711 |
| hsa-mir-152      | 4179.804467 | hsa-mir-381     | 4038.711356 |
| hsa-mir-708      | 4105.965733 | hsa-mir-493     | 4004.042122 |
| hsa-mir-423      | 4091.460422 | hsa-mir-214     | 3810.103511 |
| hsa-mir-148b     | 4038.811878 | hsa-mir-379     | 3752.624433 |
| hsa-mir-134      | 3869.791911 | hsa-mir-574     | 3655.895989 |
| hsa-mir-196a-2   | 3707.052756 | hsa-mir-224     | 3635.529433 |
| hsa-mir-22       | 3450.782722 | hsa-mir-148b    | 3300.377856 |
| hsa-mir-342      | 3400.091844 | hsa-mir-708     | 3214.915933 |
| hsa-mir-379      | 3316.400222 | hsa-mir-145     | 3157.132822 |
| hsa-mir-214      | 2965.195722 | hsa-mir-132     | 3060.151578 |
| hsa-mir-574      | 2948.291633 | hsa-let-7f-2    | 2797.853956 |
| hsa-mir-381      | 2931.172444 | hsa-mir-152     | 2749.6317   |
| hsa-mir-145      | 2775.811267 | hsa-mir-370     | 2744.505856 |
| hsa-mir-140      | 2684.237311 | hsa-mir-503     | 2644.096844 |
| hsa-mir-30e      | 2677.400733 | hsa-let-7c      | 2546.679567 |
| hsa-mir-335      | 2638.985589 | hsa-mir-369     | 2467.8796   |
| mirRNA       | Exp Value | mirRNA       | Exp Value |
|-------------|-----------|-------------|-----------|
| hsa-mir-370 | 2517.349111 | hsa-mir-22  | 2234.536789 |
| hsa-mir-10b | 2418.155367 | hsa-mir-361 | 2203.599822 |
| hsa-mir-125b-1 | 2278.842644 | hsa-mir-431 | 2072.700433 |
| hsa-mir-7f-2 | 2159.046767 | hsa-mir-30e | 2015.313033 |
| hsa-mir-376c | 2099.947989 | hsa-mir-140 | 1972.377578 |
| hsa-mir-28  | 2039.237078 | hsa-mir-335 | 1927.848567 |
| hsa-mir-425 | 1986.233556 | hsa-mir-193a | 1865.593311 |
| hsa-mir-361 | 1898.102267 | hsa-mir-425 | 1800.810567 |
| hsa-mir-369 | 1884.606211 | hsa-mir-1246 | 1767.811622 |
| hsa-mir-411 | 1735.109956 | hsa-mir-424 | 1718.147511 |
| hsa-mir-431 | 1725.044267 | hsa-mir-10b | 1713.916733 |
| hsa-mir-136 | 1703.801867 | hsa-mir-23b | 1704.330089 |
| hsa-mir-132 | 1664.275522 | hsa-mir-98  | 1615.237689 |
| hsa-mir-132 | 1664.275522 | hsa-mir-122 | 1578.556778 |
| hsa-mir-224 | 1514.768844 | hsa-mir-28  | 1567.024633 |
| hsa-mir-337 | 1498.9928  | hsa-mir-337 | 1512.842556 |
| hsa-mir-23b | 1445.808711 | hsa-mir-98  | 1307.151178 |
| hsa-mir-186 | 1434.926967 | hsa-mir-199b | 1306.301378 |
| hsa-mir-137 | 1387.040733 | hsa-mir-1307 | 1216.227644 |
| hsa-mir-15b | 1355.277867 | hsa-mir-186 | 1173.139867 |
| hsa-mir-130a | 1139.7994  | hsa-mir-323a | 1171.379244 |
| hsa-mir-494 | 1139.717333 | hsa-mir-142 | 1115.633644 |
| hsa-mir-146b | 1108.602578 | hsa-mir-137 | 1098.538722 |
| hsa-mir-20a | 1078.098356 | hsa-mir-15b | 1092.301944 |
| hsa-mir-98  | 1066.804478 | hsa-mir-122 | 1074.585033 |
| hsa-mir-339 | 1066.636056 | hsa-mir-485 | 1044.525611 |
| hsa-mir-487b | 1031.674144 | hsa-mir-6087 | 1029.943533 |
| hsa-mir-671 | 1029.595289 | hsa-mir-671 | 1028.268811 |
| hsa-mir-455 | 962.6182222 | hsa-mir-136 | 1016.014078 |
| hsa-mir-665 | 950.2608333 | hsa-mir-376c | 999.4390222 |
| miRNA    | Score  | miRNA    | Score  |
|----------|--------|----------|--------|
| hsa-mir-542 | 918.9008778 | hsa-mir-487b | 959.9895333 |
| hsa-mir-454  | 856.4460778 | hsa-mir-199a-2 | 955.1862667 |
| hsa-mir-1307  | 837.8247444 | hsa-mir-494 | 942.6891667 |
| hsa-mir-106b  | 804.4620556 | hsa-mir-16-1 | 937.8173333 |
| hsa-mir-7704  | 763.1122111 | hsa-mir-20a | 878.2891556 |
| hsa-mir-6087  | 743.5692778 | hsa-mir-3929 | 825.0446667 |
| hsa-mir-199a-2 | 725.7732889 | hsa-mir-130a | 785.8688556 |
| hsa-mir-193a  | 712.0917889 | hsa-mir-339 | 778.7449333 |
| hsa-mir-4532  | 705.3736333 | hsa-mir-181a-2 | 776.0269556 |
| hsa-mir-374a  | 692.5919778 | hsa-mir-5096 | 773.6895667 |
| hsa-mir-323a  | 688.4405889 | hsa-mir-4516 | 744.3336889 |
| hsa-mir-99a   | 677.9878  | hsa-mir-744 | 737.989  |
| hsa-mir-142   | 676.8422556 | hsa-mir-106b | 692.1451111 |
| hsa-mir-29c   | 669.2403444 | hsa-mir-17 | 690.3638556 |
| hsa-mir-1273a | 668.5974778 | hsa-mir-126 | 685.0994556 |
| hsa-mir-17    | 648.8254444 | hsa-mir-629 | 662.7819222 |
| hsa-mir-532   | 618.7978444 | hsa-mir-185 | 653.0764667 |
| hsa-mir-185   | 618.7239222 | hsa-mir-665 | 631.0107 |
| hsa-mir-181a-2 | 598.9191667 | hsa-mir-454 | 618.3349222 |
| hsa-mir-154   | 590.4103 | hsa-mir-154 | 560.4866222 |
| hsa-mir-126   | 543.7228444 | hsa-mir-542 | 530.9536556 |
| hsa-mir-130b  | 524.7776333 | hsa-mir-615 | 508.3944778 |
| hsa-mir-615   | 494.0281222 | hsa-mir-92b | 499.9266556 |
| hsa-mir-1246  | 481.3837444 | hsa-mir-146b | 492.4965 |
| hsa-mir-485   | 478.2787556 | hsa-mir-532 | 479.5470333 |
| hsa-mir-660   | 476.6780556 | hsa-mir-455 | 477.4843778 |
| hsa-mir-16-1  | 435.6969222 | hsa-mir-29c | 449.4682 |
| hsa-mir-5096  | 417.6017222 | hsa-mir-130b | 446.0732111 |
| hsa-mir-299   | 414.7932556 | hsa-mir-328 | 430.6737222 |
| hsa-mir-450b  | 413.8984111 | hsa-mir-323b | 416.9108778 |
| mirRNA     | Expression  | mirRNA     | Expression  |
|-----------|-------------|-----------|-------------|
| hsa-mir-345 | 413.4423889 | hsa-mir-484 | 406.4600889 |
| hsa-mir-629 | 412.1395222 | hsa-let-7f-1 | 405.8193667 |
| hsa-mir-484 | 406.7610667 | hsa-mir-4532 | 396.0914333 |
| hsa-mir-30b | 402.3682444 | hsa-mir-374a | 389.6246222 |
| hsa-mir-3929 | 395.2320556 | hsa-mir-345 | 370.1651667 |
| hsa-mir-324 | 392.9544222 | hsa-mir-125b-2 | 364.9741333 |
| hsa-mir-190a | 356.2202111 | hsa-let-7a-2 | 361.1676556 |
| hsa-mir-15a | 348.9244778 | hsa-mir-889 | 356.5265667 |
| hsa-mir-34c | 348.8685778 | hsa-mir-660 | 356.4528333 |
| hsa-mir-376a-2 | 345.9914667 | hsa-mir-92a-1 | 337.3121222 |
| hsa-mir-210 | 345.3609556 | hsa-mir-197 | 332.0180222 |
| hsa-mir-92a-1 | 339.8735778 | hsa-mir-16-2 | 328.8195222 |
| hsa-mir-377 | 328.8209889 | hsa-mir-324 | 327.9566778 |
| hsa-let-7f-1 | 326.5786 | hsa-mir-625 | 320.2548111 |
| hsa-mir-889 | 318.4822889 | hsa-mir-181a-1 | 310.7142 |
| hsa-mir-197 | 302.9086444 | hsa-mir-192 | 302.8046444 |
| hsa-mir-378a | 301.3257111 | hsa-mir-495 | 299.6352556 |
| hsa-mir-92b | 300.0858111 | hsa-let-7a-1 | 297.0850778 |
| hsa-mir-769 | 272.0033556 | hsa-mir-296 | 277.9803111 |
| hsa-mir-181a-1 | 269.7242778 | hsa-let-7a-2 | 277.8541778 |
| hsa-mir-19a | 251.5362 | hsa-mir-450b | 273.9452556 |
| hsa-mir-125b-2 | 250.8823778 | hsa-mir-15a | 268.7519222 |
| hsa-mir-625 | 246.4861333 | hsa-mir-190a | 267.1790556 |
| hsa-mir-744 | 245.9201444 | hsa-mir-299 | 263.351 |
| hsa-mir-135b | 245.1019111 | hsa-mir-3615 | 260.5662 |
| hsa-mir-192 | 243.7499444 | hsa-mir-769 | 231.3506889 |
| hsa-mir-495 | 235.1820444 | hsa-mir-1180 | 214.5451111 |
| hsa-mir-181b-2 | 229.8289333 | hsa-mir-452 | 212.3563667 |
| hsa-mir-675 | 229.3182222 | hsa-mir-196a-1 | 207.2698778 |
| hsa-mir-323b | 225.4393778 | hsa-mir-576 | 194.4725333 |
| Gene name   | Average counts | Gene name      | Average counts |
|------------|---------------|--------------|---------------|
| hsa-mir-128-1 | 221.7729778   | hsa-mir-128-1 | 187.0343222   |
| hsa-mir-4516  | 205.2658889   | hsa-mir-181b-2 | 185.6746111   |
| hsa-mir-18a   | 182.3394778   | hsa-mir-34c   | 185.3921      |
| hsa-mir-16-2  | 180.4811222   | hsa-mir-377   | 185.3741778   |
| hsa-mir-1271  | 178.584       | hsa-mir-664a  | 164.3350778   |
| hsa-mir-590   | 176.5045      | hsa-mir-30b   | 159.8810556   |
| hsa-mir-1287  | 154.8084556   | hsa-mir-376a-2 | 117.1762111   |
| hsa-mir-376b  | 147.9224444   |               |               |
| hsa-mir-32    | 145.6265      |               |               |
| hsa-mir-421   | 145.1037333   |               |               |

PLT-MSC: human platelet lysate-mesenchymal stem cell; FBS-MSC: fetal bovine serum-mesenchymal stem cell; EVs: extracellular vesicles.

**Supplementary Table 2. Unique miRNA counts**

| PLT-MSC EVs     | FBS-MSC EVs          |
|-----------------|----------------------|
| **Gene name**   | **Average counts**   | **Gene name** | **Average counts** |
| hsa-mir-7704    | 763.1122111          | hsa-mir-122   | 1074.585033       |
| hsa-mir-99a     | 677.9878             | hsa-mir-328   | 430.6737222       |
| hsa-mir-1273a   | 668.5974778          | hsa-let-7a-3  | 361.1676556       |
| hsa-mir-210     | 345.3609556          | hsa-let-7a-1  | 297.0850778       |
| hsa-mir-378a    | 301.3257111          | hsa-mir-296   | 277.9803111       |
| hsa-mir-19a     | 251.5362             | hsa-let-7a-2  | 277.8541778       |
| hsa-mir-135b    | 245.1019111          | hsa-mir-3615  | 260.5662          |
| hsa-mir-675     | 229.3182222          | hsa-mir-1180  | 214.5451111       |
| hsa-mir-18a     | 182.3394778          | hsa-mir-452   | 212.3563667       |
| hsa-mir-1271    | 178.584              | hsa-mir-196a-1 | 207.2698778     |
| hsa-mir-590     | 176.5045             | hsa-mir-576   | 194.4725333       |
| hsa-mir-1287    | 154.8084556          | hsa-mir-664a  | 164.3350778       |
| hsa-mir-376b    | 147.9224444          |               |               |
| hsa-mir-32      | 145.6265             |               |               |
hsa-mir-421  145.1037333

PLT-MSC: human platelet lysate-mesenchymal stem cell; FBS-MSC: fetal bovine serum-mesenchymal stem cell; EVs: extracellular vesicles.

Supplement Table 3. Complete list of common mRNA targets from miRNA bioinformatic analysis

| mRNA Target 1 | mRNA Target 2 | mRNA Target 3 | mRNA Target 4 |
|---------------|---------------|---------------|---------------|
| AARSD1        | EIF3J         | NXN           | THBS1         |
| ACP1          | EIF4G2        | OTULINL       | TLR4          |
| ADGRG1        | F2            | PGRMC1        | TPM2          |
| AGO4          | FADS2         | POLD2         | TRIM71        |
| AKAP8         | FANCD2        | POLR2C        | TRMT1         |
| ANAPC1        | FNDC3A        | POM121/POM121C| TTC9C        |
| ATAD3B        | GAK           | PPP1R7        | TUSC2         |
| ATP6V0A1      | GEMIN7        | PRDM1         | TYMS          |
| ATP6V1F       | GRPEL2        | PRIM1         | UGT8          |
| AURKB         | GTPBP3        | PRRC2A        | UHRF1         |
| BCL2L1        | GYS1          | PTGS2         | VIM           |
| BCL7A         | HMGA1         | PXDN          | VPS39         |
| BMP2K         | HMGA2         | RABGAP1L      | WNT1          |
| BSG           | HMOX1         | RAS           | FGF16         |
| CALCOCO2      | HYOU1         | RBM19         | FGFR3         |
| CAPG          | IFIT5         | RDH10         | IGF1R         |
| CARHSP1       | IFRD1         | RHOB          | MTOR          |
| CASP3         | IGF2BP1       | RHOG          | PLK1          |
| CCND1         | IGF2BP2       | RPP38         | RPTOR         |
| CDC25A        | IGF2BP3       | RRP8          | SMARCA5       |
| CDIPT         | IPO4          | RTCA          | APAF1         |
| CDK6          | ITGB3         | SCYL1         | HOXA1         |
| CDKAL1        | KCNJ16        | SEPTIN3       | HOXD10        |
| CEMIP2        | KLK10         | SIGMAR1       | KLF4          |
| CHMP2A  | KRAS   | SLC1A4 | NF1   |
|------|--------|--------|-------|
| CIAO2A | KRT19  | SLC25A1 | USF2 |
| COIL   | LIN28A | SLC25A13 | AP2M1 |
| COL1A2 | MARS2  | SLC25A24 | API5 |
| COMMD9 | MED28  | SLC25A32 | BAK1 |
| CSDE1  | MLLT1  | SLC38A1 | BAX  |
| CSNK1D | MRM1   | SMC1A  | BMF  |
| DAD1   | MRPS24 | SMOX   | KLK1 |
| DHX57  | MRPS33 | SNAP23 | TP53 |
| DICER1 | MTPN   | SPCS3  | ABTB1 |
| DOCK5  | MTRR   | SPRYD4 | ACSS1 |
| DRD3   | MYC    | SYPL1  | ADAMTS1 |
| DSP    | NEDD4  | TAF9B  | AJUBA |
| DUSP12 | NF2    | TAGLN  | ALOX5 |
| DUSP23 | NRAS   | TGFBR1 | ANAPC16 |
| APLN   | MAP2K7 | CSF1   | C11orf58 |
| ARID3A | MAZ    | HOXA5  | CCDC25 |
| ARID3B | MYD88  | MAFB   | CCNA2 |
| ATP6AP1L | OSBPL9  | MEOX2 | CDK4 |
| B3GALT4 | PCDHB10 | SMAD4 | CES1 |
| BMPR1B | PCTP   | TAC1   | CLINT1 |
| CASP6  | PERP   | ZFPM2  | DDR1 |
| CASP7  | PIGR   | ARHGAP32 | DFFA |
| CBFB   | PPT2   | CAPN8  | DTD1 |
| CBLN2  | RABL6  | MECP2  | EIF4E |
| CBX7   | RBM8A  | MMP9   | EIF4EBP2 |
| CCR5   | RHEBL1 | PGC    | F11R |
| CDH5   | SCD    | RB1    | FBXO28 |
| CDKN2A | SGPL1  | SOX4   | FLI1 |
| CEBPG  | SMO    | TJP1   | FSCN1 |
| Gene1   | Gene2   | Gene3   | Gene4   |
|---------|---------|---------|---------|
| CYP1A1  | ST18    | ALOX5AP | KLF5    |
| DDX19B  | TAFA1   | HTR1A   | KRT7    |
| DIO3    | TENM2   | RUNX2   | LAMP2   |
| DUS1L   | TOR2A   | SMAD5   | MDFI    |
| E2F3    | TSPAN8  | TRPS1   | MMP1    |
| ELAVL1  | UBE2I   | NCOA2   | MUC1    |
| ENTPD4  | UGT2B15 | ADAMTS5 | NDUFA4  |
| ERBB2   | UGT2B17 | CXCL12  | PADI1   |
| ERBB3   | UGT2B28 | DNPEP   | PARP8   |
| GPR160  | UVRAG   | EGR2    | PPP3CA  |
| GSS     | VSIR    | HDAC4   | RASA1   |
| H3-3A/H3-3B | ZNF385A | IGFBP5  | ROBO4   |
| H4C1    | CRKL    | SMAD3   | RTKN    |
| HK2     | IRS1    | BCL2    | SPTB    |
| ID1     | PIK3R2  | DNMT3A  | SWAP70  |
| ID2     | SLC45A3 | FNDC3B  | TPM3    |
| ID3     | SPRED1  | MAPK12  | UNG     |
| IGFBP3  | TOM1    | MAPK7   | USP46   |
| IKZF4   | VCAM1   | MDM2    | VASP    |
| IL1RN   | VEGFA   | PRC1    | ATOH8   |
| JARID2  | BCL6    | TOP2A   | BLMH    |
| KLF13   | RTL1    | ABRACL  | BRCA1   |
| LIPA    | XBP1    | ACBD3   | C8A     |
| MAN1A1  | ATG2B   | AHNAK   | CAMP    |
| CCL8    | MR1     | AICDA   | IKBKE   |
| CCR3    | NFIX    | AMIGO2  | IL13RA1 |
| CD1D    | NLGN1   | ANKFY1  | INPP5D  |
| CD40    | NOS2    | ARFIP1  | LCLAT1  |
| CDKN3   | NOVA1   | ARFIP2  | LDOC1   |
| CFH     | PA2G4   | ARID2   | LPL     |
| Gene    | Gene    | Gene    | Gene    |
|---------|---------|---------|---------|
| CHUK    | PBLD    | ARL10   | LY6K    |
| COL13A1 | PDGFRA  | ARL5B   | MAF     |
| CRP     | PDIK1L  | ATG3    | 1-Mar   |
| CXCL8   | PEX11G  | ATP6V1C1| MATR3   |
| CXCR4   | PGLYRP1 | BACH1   | MEIS1   |
| DMBT1   | PGLYRP2 | BET1    | MET     |
| FADD    | PLEKHA4 | BRPF3   | MOSPD2  |
| IFNA1/IFNA13 | POLE2 | CCN1 | MPZL1 |
| IFNB1   | PRR15   | CD47    | MSI2    |
| IL10    | PTAFR   | CDK5RAP3| MYB     |
| IL12RB2 | PTGES2  | CEBPB   | MYO10   |
| IL1F10  | RAD54L  | CHAF1A  | MYO1E   |
| IL1R1   | S100A12 | CLDN1   | NARS1   |
| IL1RAP  | SDCBP2  | CSF1R   | NT5E    |
| IL1RAPL2| SFTPD   | CTLA4   | PDE3A   |
| IL1RL2  | STAT1   | CTNNB1  | PDLIM5  |
| IL36A   | SYT1    | CUL4B   | PHC2    |
| IL36B   | TIMELESS| CUX1    | PICALM  |
| IL36G   | TLR1    | CYP51A1 | PKN2    |
| IL36RN  | TLR10   | DCAF7   | PLXND1  |
| IL37    | TLR9    | DHX40   | PMAIP1  |
| IRAK1   | TMSB15A | DNAJB1  | PODXL   |
| IRAK2   | TRAF6   | DNAJC19 | POLE3   |
| IRF5    | TRIM14  | DPP7    | POLE4   |
| KIF22   | VWCE    | DSG2    | PPL     |
| LALBA   | CCKBR   | ETS1    | PPP5C   |
| LBP     | DNMT1   | FADS1   | PRAF2   |
| LTB     | DNMT3B  | FAR1    | PRKCI   |
| LTF     | HOTAIR  | FGF7    | PTPRJ   |
| MCM10   | NR1H2   | FMNL2   | RAB23   |
| Gene 1 | Gene 2 | Gene 3 | Gene 4 |
|-------|--------|--------|--------|
| TRIM32 | CHEK1 | JUN | PMS1 |
| TRIP13 | CHORDC1 | JUN/JUNB/JUND | PNN |
| TXNDC12 | CLDN12 | KCNN4 | PNP |
| TXNRD1 | CREBL2 | KIF23 | PPIF |
| UBE2J1 | CRHB1 | KITLG | PPP2R5C |
| UFL1 | CSHL1 | KPNA3 | PRIMPOL |
| VAMP3 | DIPK1A | LAMC1 | PSAT1 |
| WDFY1 | DMTF1 | LAMTOR3 | PURA |
| WEE1 | DNAJB4 | LAMTOR5 | PWWP2A |
| ABCF2 | ECHDC1 | LDAH | RAB21 |
| ABHD10 | EGFR | LUZP1 | RAB30 |
| ACP2 | FAM122C | LYPLA2 | RAB9B |
| RAD51C | UGDH | RBL2 | CTNND1 |
| RAFI | UGP2 | RUNX1 | TSPAN3 |
| RARS1 | UTP15 | S1PR1 | DYRK1A |
| RECK | VPS45 | STAT3 | LAMC2 |
| RFT1 | VTI1B | TGFBR2 | SET |
| RHOT1 | WIPF1 | TLR7 | SIRT1 |
| RIDA | WNT3A | TNF | ACTA2 |
| RNASEL | WT1 | TP63 | BTG2 |
| RTN4 | YIF1B | ZBTB7A | SGK3/SGK3 |
| SEC24A | ZNF559 | AKT1 | FAM3C |
| SERPINE2 | ZNF622 | CDC42 | FAS |
| SHOC2 | ZYX | CORO2B | FASLG |
| SKAP2 | APP | DDIT3 | GLCCI1 |
| SLC12A2 | ARID4B | DDX43 | GSK3B |
| SLC16A3 | BAMBI | FOXO1 | IL6R |
| SLC25A22 | BCL2L11 | TWIST1 | JAG1 |
| SLC35A1 | BMPR2 | CCN2 | LRRFIP1 |
| SLC35B3 | BNIP2 | HIF1A | MARCKS |
| SLC38A5 | CAMTA1 | Ccl9 | MTAP |
|---------|--------|------|------|
| SLC7A1  | CDKN1A | IL6  | NFB  |
| SPTLC1  | CREB1  | TLR3 | PEL1 |
| SQSTM1  | CRIM1  | DHFR | PIK3 |
| SRPRA   | E2F1   | DTL  | PRRG |
| SRPRB   | E2F2   | ZEB1 | RP2  |
| TIA1    | ESR1   | ZEB2 | SERP |
| TMEM109 | HBP1   | E2F6 | SESN |
| TMEM189 | HIPK3  | ERBB4| SLC1 |
| TMEM251 | ITCH   | PLAU | SLC16|
| TMEM43  | JAK1   | PTK2 | SOCS |
| TNFSF9  | MAP3K12| RPS6K| SOD3 |
| TOMM34  | MEF2D  | ANXA1| SOX5 |
| TPI1    | MICA   | HOXA7| SPRY |
| TPPP3   | MMP3   | HOXB8| TCF2 |
| TRMT13  | MYLIP  | HOXC8| TIMP |
| TXN2    | NCOA3  | HOXD8| TPM1 |
| UBE2S   | PAK5   | IKBKB| ATF4 |
| UBE4A   | PKD2   | KRT5 | GPD1 |
| UCP2    | PPARG  | S100A| ING4 |
| MAN1A1  | PTEN   | ACVR1| POU4 |
| SCN3A   | MEF2C  | MLF1 | IDH1 |
| BMP7    | MMP13  | MYBL2| KRT8 |
| MAX     | ODC1   | NASP | LMNB |
| PPARA   | PDPK1  | NAV3 | LRRC |
| SRF     | PEX7   | PPIC | LTN1 |
| BBC3    | PHB    | PPM1D| MAP4 |
| BNIP3L  | PKMYT1 | RERE | MAT2 |
| CDKN1B  | PXN    | SHROOM2| MBNL |
| CDKN1C  | RXRA   | SP1  | MPDU |
| Gene 1 | Gene 2 | Gene 3 | Gene 4 |
|--------|--------|--------|--------|
| DDIT4  | SRM    | SPARC  | NCEH1  |
| DIRAS3 | ST14   | SRSF10 | NCL    |
| FOS    | THRBI  | TCL1A  | NEUROD1|
| FOXO3  | ZBTB10 | TDG    | NT5C3A |
| ICAM1  | AR     | TET1   | NUCB1  |
| KIT    | ACVR2A | TGFB3  | NUFIP2 |
| PPP2R2A| ARPC3  | TNFAIP3| P4HA2  |
| PTPRM  | BACE1  | TRIM9  | PEX11B |
| SOD2   | CAV2   | TUBB2A | PGM1   |
| TBK1   | CD276  | YY1    | POGLUT3|
| 2700046G09Rik | CNOT8 | ZFP36L1 | PPP3R1 |
| ATAT1  | COL15A1| ADPGK  | PRPF40A|
| FBXO32 | COL1A1 | ANPEP  | PTGFRN |
| GATD3A/GATD3B | COL3A1 | AP2A1  | PTPA   |
| HES1   | COL4A1 | ATP2A2 | PTPRK  |
| LMNB1  | COL4A2 | ATRX   | PTRH1  |
| MDH2   | COL5A2 | BECN1  | RAD23B |
| NOTCH1 | COL5A3 | CDCP1  | RBMS1  |
| TRIM63 | DCP2   | CEP72  | SEC23A |
| EPHA2  | DUSP2  | CHD1   | SEC62  |
| EZH2   | FBN1   | CNOT9  | SLC12A4|
| HPGD   | FRAT2  | CPNE8  | SLC38A2|
| MAP2   | GAS7   | DOCK7  | SLC4A10|
| PHF6   | GMFB   | ELMOD2 | SLC4A7 |
| ADORA2B| GPR37  | FRG1   | SLC7A11|
| CTNNBIP1| HMGN3 | FXR2   | SLC9A3R2|
| CYP1B1 | INSIG1 | GALNT1 | STRN   |
| FBXW7  | KCTD3  | GNAI2  | STX1A  |
| GCA    | LOXL2  | GPD2   | STX7   |
| IFI16  | MAPRE2 | HNRNPM | SYT4   |
| THEM4     | CNTN4   |
|-----------|---------|
| TMCO1     | CDKN2AIP|
| TMED10    | VSNL1   |
| TMED2     | ONECUT1 |
| TMED3     | AGO1    |
| TMED7     | CCNE2   |
| TMEM41B   | RUNX3   |
| TMEM59    | LCOR    |
| TMEM87A   | NTRK3   |
| TNFAIP2   | BCL2L12 |
| TNFRSF10B | MAD2L1  |
| TNRC6A    | ENPP6   |
| UAP1      | IKZF1   |
| WNT5A     | ITGA5   |
| CASR      | MAPRE1  |
| FOXP3     | OSBPL2  |
| LATS2     | OSBPL8  |
| PDGFB     | PCGF1   |
| SATB2     | RFFL    |
| STK40     |         |
| GNAO1     |         |
| LIMK1     |         |
| NANOG     |         |
| NR5A2     |         |
| PUM2      |         |
| PUM2      |         |
| HSPB6     |         |
| PTPN11    |         |
| GRM3      |         |
| HOXA11    |         |
| MTDH      |         |
Supplementary Table 4. Unique mRNA targets from miRNA sequencing results

| PLT unique targets | FBS unique targets |
|--------------------|--------------------|
| **Gene ID**        | **Gene ID**        |
| APC                | AACS               |
| JAK2               | ADAM17             |
| SLC6A4             | AKT3               |
| HSF2               | ALDOA              |
| PIAS3              | ANK2               |
| NR4A2              | ANXA11             |
| SPRY1              | AP3M2              |
| ACVR1B             | ATP11A             |
| CASP8AP2           | ATP1A2             |
| EFNA3              | BACH2              |
| FGFRL1             | BCKDK              |
| ISCU               | CCNG1              |
| MNT                | CD320              |
| NPTX1              | CERS6              |
| PTPN1              | CLDN18             |
| RAD52              | CS                 |
| SDHD               | DSTYK              |
| TP53I11   | EGLN3  |
|-----------|--------|
| RBMXL1    | FAM117B|
| ADCY6     | FOXJ3  |
| AHCYL1    | FUNDC2 |
| AQP5      | G6PC3  |
| CELSR2    | GALNT10|
| HTR1B     | GPX7   |
| MITF      | HJV    |
| MYRIP     | MAPK11 |
| ODF2      | MEP1A  |
| RYK       | NCAM1  |
|           | NDRG3  |
|           | NFATC1 |
|           | NFATC2IP|
|           | NUMBL  |
|           | OSMR   |
|           | PALM   |
|           | RAB11FIP1|
|           | RAB6B  |
|           | RABIF  |
|           | SLC35A4|
|           | TBX19  |
|           | TMEM50B|
|           | TPD52L2|
|           | TRIB1  |
|           | TRPV6  |
|           | TTYH3  |
|           | UBAP2  |
|           | XPO6   |
|           | Spryl  |
|       | ABCB1   |
|-------|---------|
|       | HGS     |
|       | SCRIB   |
|       | ABCG2   |
|       | CD44    |