



Supplemental Material to:

Andrey Turchinovich and Barbara Burwinkel

**Distinct AGO1 and AGO2 associated miRNA
profiles in human cells and blood plasma**

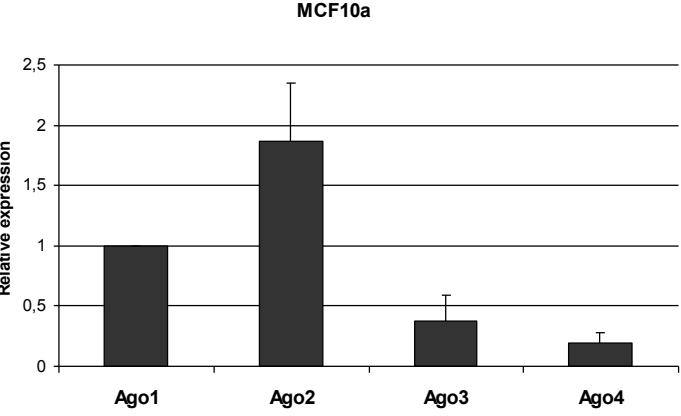
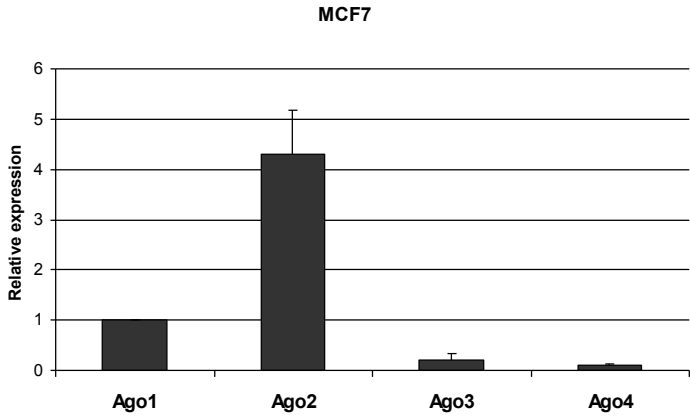
RNA

Biology 2012; 9(8)

<http://dx.doi.org/10.4161/rna.21083>

www.landesbioscience.com/journals/rnabiology/article/21083/

S1: Relative mRNA expression of four human AGO proteins in MCF7 and MCF 10a cells.



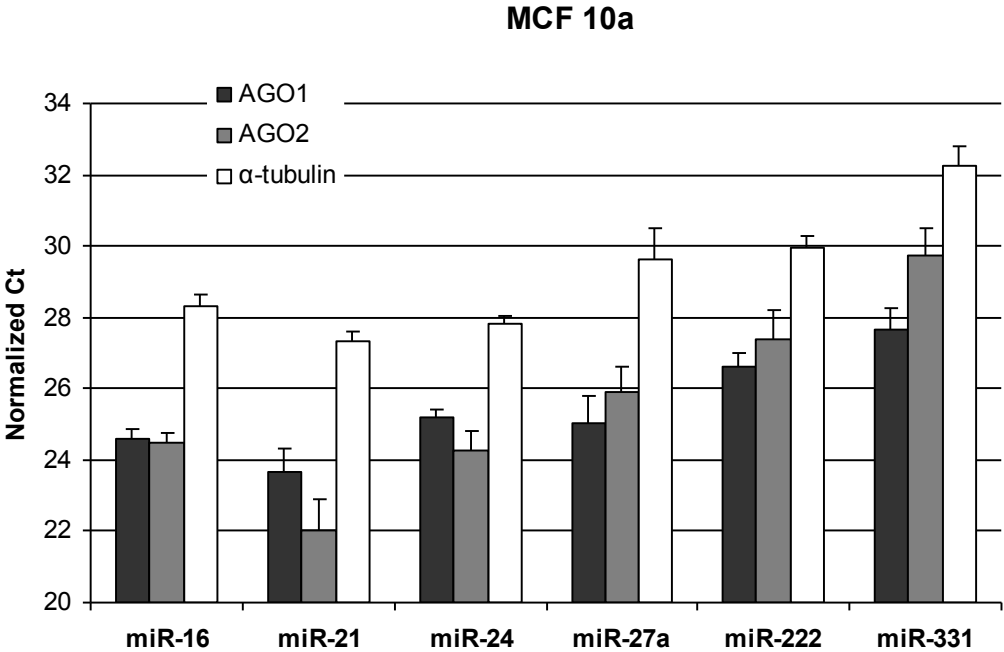
S2: TaqMan miRNA Array data performed on AGO1 and AGO2 immunoprecipitates from MCF7 cell lysates (quantile normalized Ct values, mean of 2 replicates).

| miRNA | AGO1 | AGO2 | AGO1 - AGO2 | Pre-miRNA strand |
|------------------------|------------|------------|--------------|------------------|
| hsa-miR-27a-4373287 | 22,7108326 | 25,6429944 | -2,932161805 | 3p |
| hsa-miR-331-3p-4373046 | 21,0664601 | 23,9169649 | -2,850504805 | 3p |
| hsa-miR-7-1*-4381118 | 25,6456706 | 28,4489174 | -2,803246805 | 3p |
| hsa-miR-223-4395406 | 28,9383351 | 31,6983179 | -2,759982805 | 3p |
| hsa-miR-222-4395387 | 22,0658651 | 24,3264319 | -2,260566805 | 3p |
| hsa-miR-671-3p-4395433 | 26,4881046 | 28,4872449 | -1,999140305 | 3p |
| hsa-miR-744-4395435 | 24,7962121 | 26,4697534 | -1,673541305 | 5p |
| hsa-miR-30e*-4373057 | 23,5356746 | 24,9752734 | -1,439598805 | 3p |
| hsa-miR-526b*-4395494 | 29,2333581 | 30,6153529 | -1,381994805 | 3p |
| hsa-miR-30a*-4373062 | 24,9439171 | 26,2166564 | -1,272739305 | 3p |
| hsa-miR-301b-4395503 | 27,3119716 | 28,5231709 | -1,211199305 | 3p |
| hsa-miR-328-4373049 | 23,9407611 | 25,0871804 | -1,146419305 | 3p |
| hsa-miR-101-4395364 | 26,6729961 | 27,8188929 | -1,145896805 | 3p |
| hsa-miR-345-4395297 | 22,6739916 | 23,7664224 | -1,092430805 | 5p |
| hsa-miR-589*-4380953 | 27,8549606 | 28,8002144 | -0,945253805 | 3p |
| hsa-miR-27b-4373068 | 23,5004591 | 24,4299394 | -0,929480305 | 3p |
| hsa-miR-361-5p-4373035 | 26,7567041 | 27,5720149 | -0,815310805 | 3p |
| hsa-miR-93*-4395250 | 23,8450046 | 24,5673689 | -0,722364305 | 3p |
| hsa-miR-425-4380926 | 25,5535566 | 26,2452669 | -0,691710305 | 5p |
| hsa-miR-103-4373158 | 23,7327306 | 24,4237014 | -0,690970805 | 3p |
| hsa-miR-425*-4395413 | 27,9774236 | 28,6463674 | -0,668943805 | 5p |
| hsa-miR-532-3p-4395466 | 23,3662046 | 24,0045884 | -0,638383805 | 3p |
| hsa-miR-34a*-4395427 | 24,8199351 | 25,4582459 | -0,638310805 | 3p |
| hsa-miR-324-3p-4395272 | 26,9586376 | 27,5848859 | -0,626248305 | 3p |
| hsa-miR-766-4395177 | 27,8124966 | 28,4323914 | -0,619894805 | 3p |
| hsa-miR-28-3p-4395557 | 23,8743206 | 24,3988544 | -0,524533805 | 3p |
| hsa-miR-181a*-4373086 | 28,8410111 | 29,3526284 | -0,511617305 | 3p |
| hsa-miR-625*-4395543 | 24,2980831 | 24,8054864 | -0,507403305 | 3p |
| hsa-miR-489-4395469 | 25,4801591 | 25,9843989 | -0,504239805 | 3p |
| hsa-miR-923-4395264 | 26,4043661 | 26,8654334 | -0,461067305 | Frag 28S rRNA |
| hsa-miR-191-4395410 | 19,4996751 | 19,9599574 | -0,460282305 | 5p |
| hsa-miR-126-4395339 | 23,3712936 | 23,8123424 | -0,441048805 | 3p |
| hsa-miR-652-4395463 | 24,8042466 | 25,2182179 | -0,413971305 | 3p |
| hsa-miR-30e-4395334 | 25,5659691 | 25,9432004 | -0,377231305 | 5p |
| hsa-miR-141-4373137 | 26,5978211 | 26,9491994 | -0,351378305 | 3p |
| hsa-miR-197-4373102 | 23,2354536 | 23,5843784 | -0,348924805 | 3p |
| hsa-let-7c-4373167 | 26,4580186 | 26,8067889 | -0,348770305 | 5p |
| hsa-miR-29b-4373288 | 28,0538876 | 28,4008484 | -0,346960805 | 3p |
| hsa-let-7b-4395446 | 23,7574116 | 24,0290494 | -0,271637805 | 5p |
| hsa-miR-210-4373089 | 24,8267781 | 25,0784874 | -0,251709305 | 3p |
| hsa-miR-192-4373108 | 24,6347291 | 24,8784819 | -0,243752805 | 5p |
| hsa-miR-923-4395264 | 26,5635736 | 26,7864704 | -0,222896805 | Frag 28S rRNA |
| hsa-miR-374a-4373028 | 22,7573961 | 22,9584609 | -0,201064805 | 5p |
| hsa-let-7a-4373169 | 23,7069551 | 23,9017264 | -0,194771305 | 5p |
| hsa-miR-95-4373011 | 26,1272371 | 26,2920529 | -0,164815805 | 3p |
| hsa-miR-335-4373045 | 24,5471246 | 24,7077554 | -0,160630805 | 5p |
| hsa-miR-484-4381032 | 19,8175111 | 19,9775409 | -0,160029805 | 5p |
| hsa-miR-598-4395179 | 25,4620541 | 25,5734569 | -0,111402805 | 3p |
| hsa-miR-193b-4395478 | 19,8580746 | 19,9634679 | -0,105393305 | 3p |
| hsa-miR-29a-4395223 | 23,1295306 | 23,2348759 | -0,105345305 | 3p |
| hsa-miR-92a-4395169 | 22,0433361 | 22,1322714 | -0,088935305 | 3p |

| | | | | |
|-------------------------|------------|------------|--------------|----|
| hsa-miR-125b-4373148 | 25,8688311 | 25,9549674 | -0,086136305 | 5p |
| hsa-miR-10a-4373153 | 27,9292151 | 28,0037989 | -0,074583805 | 5p |
| hsa-miR-16-4373121 | 20,6214196 | 20,6889314 | -0,067511805 | 5p |
| hsa-miR-130b-4373144 | 25,7321691 | 25,7990649 | -0,066895805 | 3p |
| hsa-miR-26a-4395166 | 23,3552481 | 23,3894649 | -0,034216805 | 5p |
| hsa-miR-181a-4373117 | 27,5555521 | 27,5814769 | -0,025924805 | 5p |
| hsa-miR-218-4373081 | 28,6135736 | 28,6357109 | -0,022137305 | 5p |
| hsa-miR-30d-4373059 | 25,2656491 | 25,2593954 | 0,006253695 | 5p |
| hsa-miR-342-3p-4395371 | 22,0878821 | 22,0748094 | 0,013072695 | 3p |
| hsa-miR-29c-4395171 | 26,3943166 | 26,3757849 | 0,018531695 | 3p |
| hsa-miR-182-4395445 | 26,5287961 | 26,5056394 | 0,023156695 | 5p |
| hsa-miR-185-4395382 | 27,5687141 | 27,5242639 | 0,044450195 | 5p |
| hsa-miR-140-5p-4373374 | 24,2506111 | 24,1967279 | 0,053883195 | 5p |
| hsa-let-7e-4395517 | 20,8301716 | 20,7752354 | 0,054936195 | 5p |
| hsa-miR-200a-4378069 | 24,2651871 | 24,2042264 | 0,060960695 | 3p |
| hsa-miR-301a-4373064 | 22,8310356 | 22,7686149 | 0,062420695 | 3p |
| hsa-miR-375-4373027 | 21,2208981 | 21,1453384 | 0,075559695 | 3p |
| hsa-miR-574-3p-4395460 | 25,6710701 | 25,5918954 | 0,079174695 | 3p |
| hsa-miR-30d-4373059 | 25,4750296 | 25,3866544 | 0,088375195 | 5p |
| hsa-miR-99b-4373007 | 22,3992936 | 22,2944689 | 0,104824695 | 5p |
| hsa-miR-15b-4373122 | 21,4238271 | 21,3183734 | 0,105453695 | 5p |
| hsa-let-7d-4395394 | 22,8398431 | 22,7149309 | 0,124912195 | 5p |
| hsa-miR-151-3p-4395365 | 22,7339691 | 22,6073289 | 0,126640195 | 3p |
| hsa-miR-193a-5p-4395392 | 25,6055076 | 25,4673199 | 0,138187695 | 5p |
| hsa-miR-30a-4373061 | 22,5716426 | 22,4227104 | 0,148932195 | 5p |
| hsa-miR-183*-4395381 | 25,5628021 | 25,4116364 | 0,151165695 | 3p |
| hsa-miR-195-4373105 | 24,6207826 | 24,4621849 | 0,158597695 | 5p |
| hsa-miR-125a-5p-4395309 | 22,7720631 | 22,6056929 | 0,166370195 | 5p |
| hsa-miR-324-5p-4373052 | 25,3807531 | 25,2101554 | 0,170597695 | 5p |
| hsa-miR-454-4395434 | 21,6450946 | 21,4710554 | 0,174039195 | 3p |
| hsa-miR-25-4373071 | 21,5253951 | 21,3416109 | 0,183784195 | 3p |
| hsa-miR-99a-4373008 | 27,3505411 | 27,1662754 | 0,184265695 | 5p |
| hsa-miR-183-4395380 | 26,1211856 | 25,8972974 | 0,223888195 | 5p |
| hsa-miR-149-4395366 | 24,2312401 | 24,0020534 | 0,229186695 | 5p |
| hsa-miR-26b-4395167 | 23,7340496 | 23,4953804 | 0,238669195 | 5p |
| hsa-miR-148b-4373129 | 27,4657036 | 27,2109519 | 0,254751695 | 3p |
| hsa-miR-9*-4395342 | 26,0436951 | 25,7289979 | 0,314697195 | 3p |
| hsa-miR-505*-4395198 | 29,3494021 | 29,0313364 | 0,318065695 | 5p |
| hsa-miR-106b-4373155 | 19,6016321 | 19,2746369 | 0,326995195 | 5p |
| hsa-miR-152-4395170 | 23,0530296 | 22,7141384 | 0,338891195 | 3p |
| hsa-miR-128-4395327 | 26,4057866 | 26,0623424 | 0,343444195 | 3p |
| hsa-miR-24-4373072 | 18,8453951 | 18,4993449 | 0,346050195 | 3p |
| hsa-miR-19b-4373098 | 19,1443886 | 18,7750824 | 0,369306195 | 3p |
| hsa-miR-30c-4373060 | 20,3142456 | 19,9401934 | 0,374052195 | 5p |
| hsa-miR-18a-4395533 | 24,7082646 | 24,3099499 | 0,398314695 | 5p |
| hsa-miR-203-4373095 | 19,4633156 | 19,0246364 | 0,438679195 | 3p |
| hsa-miR-135b-4395372 | 26,2903566 | 25,8459989 | 0,444357695 | 5p |
| hsa-miR-9-4373285 | 25,2543546 | 24,8094914 | 0,444863195 | 5p |
| hsa-miR-30b-4373290 | 21,3103511 | 20,8634704 | 0,446880695 | 5p |
| hsa-miR-200c-4395411 | 19,8501096 | 19,3872954 | 0,462814195 | 3p |
| hsa-miR-100-4373160 | 26,4255126 | 25,9625389 | 0,462973695 | 5p |
| hsa-miR-96-4373372 | 27,9685661 | 27,5041329 | 0,464433195 | 5p |
| hsa-miR-942-4395298 | 27,3626531 | 26,8458124 | 0,516840695 | 5p |
| hsa-miR-340-4395369 | 25,2936351 | 24,7729784 | 0,520656695 | 5p |
| hsa-miR-19a-4373099 | 24,0620106 | 23,5406909 | 0,521319695 | 3p |
| hsa-miR-365-4373194 | 22,4376421 | 21,8875339 | 0,550108195 | 3p |

| | | | | |
|-------------------------|------------|------------|-------------|----|
| hsa-miR-339-3p-4395295 | 25,5707651 | 25,0073834 | 0,563381695 | 3p |
| hsa-miR-339-5p-4395368 | 24,5044726 | 23,8907189 | 0,613753695 | 5p |
| hsa-miR-34a-4395168 | 24,0947661 | 23,4644789 | 0,630287195 | 5p |
| hsa-miR-148a-4373130 | 25,3648211 | 24,7192459 | 0,645575195 | 3p |
| hsa-miR-500-4395539 | 27,0976986 | 26,4504484 | 0,647250195 | 5p |
| hsa-miR-146b-5p-4373178 | 25,2878371 | 24,6247464 | 0,663090695 | 5p |
| hsa-miR-194-4373106 | 27,3574271 | 26,6455844 | 0,711842695 | 3p |
| hsa-miR-340*-4395370 | 27,1872956 | 26,4465824 | 0,740713195 | 5p |
| hsa-miR-501-5p-4373226 | 27,7478911 | 26,9894679 | 0,758423195 | 5p |
| hsa-miR-769-5p-4395186 | 27,2625836 | 26,4470039 | 0,815579695 | 5p |
| hsa-miR-186-4395396 | 23,0891586 | 22,2669944 | 0,822164195 | 5p |
| hsa-let-7g-4395393 | 24,7730906 | 23,9449299 | 0,828160695 | 5p |
| hsa-miR-93-4373302 | 20,1933761 | 19,3583504 | 0,835025695 | 5p |
| hsa-miR-28-5p-4373067 | 25,5930021 | 24,7340634 | 0,858938695 | 5p |
| hsa-miR-98-4373009 | 24,7448826 | 23,8850299 | 0,859852695 | 5p |
| hsa-miR-660-4380925 | 24,1195671 | 23,2490959 | 0,870471195 | 5p |
| hsa-miR-429-4373203 | 25,0955166 | 24,2116539 | 0,883862695 | 3p |
| hsa-let-7f-4373164 | 25,8374551 | 24,9449094 | 0,892545695 | 5p |
| hsa-miR-135a-4373140 | 24,6528466 | 23,7512944 | 0,901552195 | 5p |
| hsa-miR-769-5p-4395186 | 27,3960701 | 26,4870964 | 0,908973695 | 5p |
| hsa-miR-132-4373143 | 24,4730611 | 23,5579749 | 0,915086195 | 3p |
| hsa-miR-335*-4395296 | 25,5261491 | 24,5945774 | 0,931571695 | 3p |
| hsa-miR-320-4395388 | 21,7624811 | 20,8072779 | 0,955203195 | 3p |
| hsa-miR-296-5p-4373066 | 25,3989961 | 24,4254949 | 0,973501195 | 5p |
| hsa-miR-7-4378130 | 27,7717976 | 26,7876864 | 0,984111195 | 5p |
| hsa-miR-532-5p-4380928 | 24,1108931 | 23,1166054 | 0,994287695 | 5p |
| hsa-miR-200b-4395362 | 23,3568091 | 22,2788469 | 1,077962195 | 3p |
| hsa-miR-7-4378130 | 27,8013806 | 26,7211454 | 1,080235195 | 5p |
| hsa-miR-21-4373090 | 18,4337241 | 17,3231909 | 1,110533195 | 5p |
| hsa-miR-20b-4373263 | 24,2134021 | 23,0771789 | 1,136223195 | 5p |
| hsa-miR-20a-4373286 | 20,6647581 | 19,5261814 | 1,138576695 | 5p |
| hsa-miR-590-5p-4395176 | 24,7511536 | 23,6107949 | 1,140358695 | 5p |
| hsa-miR-106a-4395280 | 19,8540316 | 18,6838149 | 1,170216695 | 5p |
| hsa-miR-17-4395419 | 19,7704171 | 18,4849974 | 1,285419695 | 5p |

S3: Individual TaqMan miRNA Assays performed on anti-AGO1, anti-AGO2 or anti- α -tubulin immunoprecipitates from lysates of MCF10a cells. The data presented as normalized Ct values (see Materials and Methods section) (n=3).



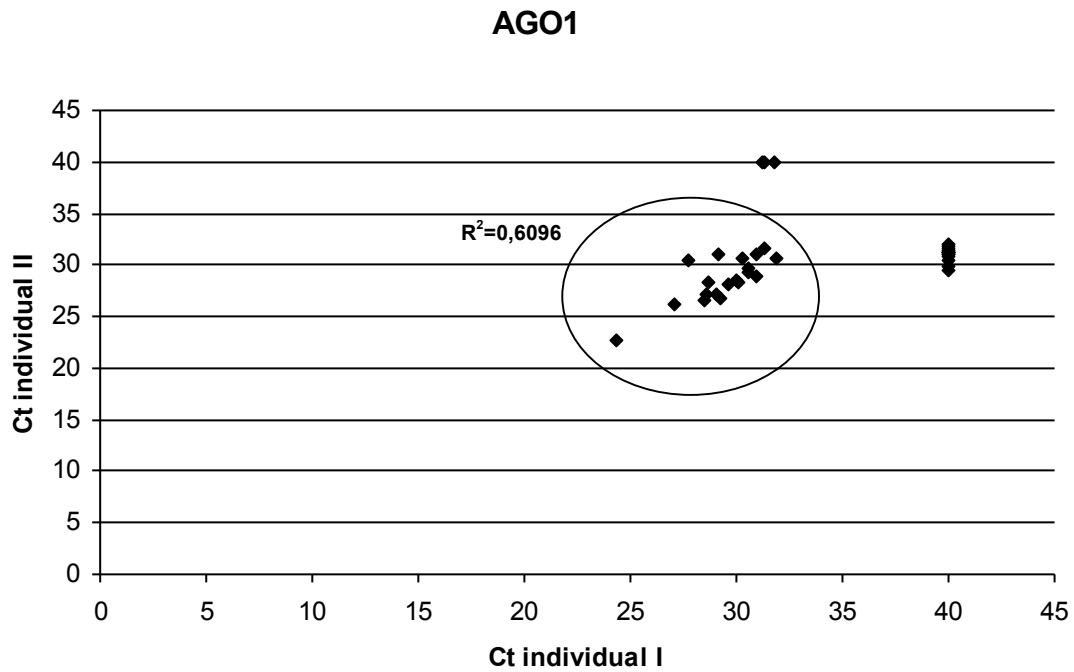
S4A: TaqMan miRNA Array data performed on AGO1 and AGO2 immunoprecipitates from blood plasma of individual I (Raw Ct values).

| miRNA | AGO1 | AGO2 | AGO1 - AGO2 |
|------------------------|-------------|-------------|--------------------|
| hsa-miR-122-4395356 | 28,636946 | 40 | -11,363054 |
| hsa-miR-483-5p-4395449 | 30,914951 | 40 | -9,085049 |
| hsa-miR-142-3p-4373136 | 31,258877 | 40 | -8,741123 |
| hsa-miR-29a-4395223 | 31,868704 | 40 | -8,131296 |
| hsa-miR-223-4395406 | 24,349644 | 26,4857 | -2,136056 |
| hsa-miR-146a-4373132 | 28,4924 | 30,457642 | -1,965242 |
| hsa-miR-24-4373072 | 29,041292 | 30,775253 | -1,733961 |
| hsa-miR-27a-4373287 | 29,114712 | 30,648777 | -1,534065 |
| hsa-miR-21-4373090 | 30,081415 | 31,203772 | -1,122357 |
| hsa-miR-126-4395339 | 29,277035 | 30,342136 | -1,065101 |
| hsa-miR-342-3p-4395371 | 30,584904 | 31,648022 | -1,063118 |
| hsa-miR-222-4395387 | 28,584768 | 29,619698 | -1,03493 |
| hsa-miR-19b-4373098 | 27,07886 | 27,684994 | -0,606134 |
| hsa-miR-19a-4373099 | 31,35113 | 31,654419 | -0,303289 |
| hsa-miR-630-4380970 | 31,775263 | 31,743898 | 0,031365 |
| hsa-miR-484-4381032 | 30,038475 | 29,434378 | 0,604097 |
| hsa-miR-320-4395388 | 30,9198 | 29,921066 | 0,998734 |
| hsa-miR-92a-4395169 | 30,59497 | 29,014816 | 1,580154 |
| hsa-miR-16-4373121 | 29,603903 | 27,325243 | 2,27866 |
| hsa-miR-571-4381016 | 27,733774 | 25,415604 | 2,31817 |
| hsa-miR-580-4381024 | 31,322872 | 28,658083 | 2,664789 |
| hsa-miR-451-4373360 | 30,319492 | 27,360407 | 2,959085 |
| hsa-miR-125b-4373148 | 40 | 31,95515 | 8,04485 |
| hsa-miR-195-4373105 | 40 | 31,606028 | 8,393972 |
| hsa-miR-93-4373302 | 40 | 31,005518 | 8,994482 |
| hsa-miR-20a-4373286 | 40 | 30,156944 | 9,843056 |
| hsa-miR-375-4373027 | 40 | 29,729963 | 10,270037 |
| hsa-miR-106a-4395280 | 40 | 28,921944 | 11,078056 |
| hsa-miR-151-3p-4395365 | 40 | 28,098455 | 11,901545 |
| hsa-miR-17-4395419 | 40 | 27,884151 | 12,115849 |

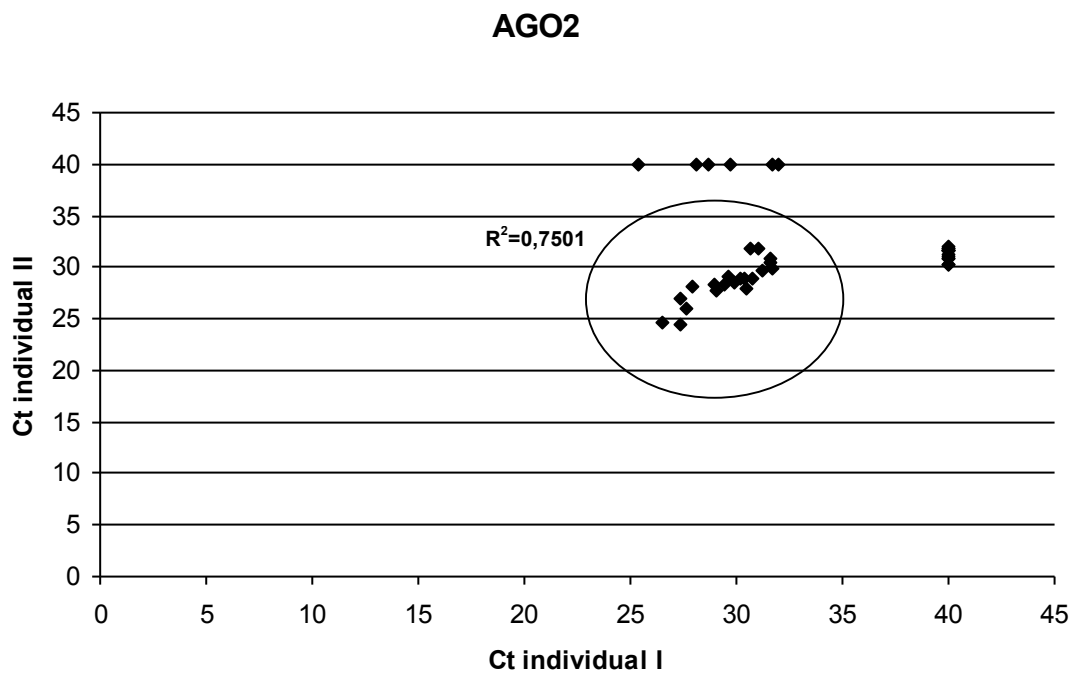
S4B: TaqMan miRNA Array data performed on AGO1 and AGO2 immunoprecipitates from blood plasma of individual II (Raw Ct values).

| miRNA | AGO1 | AGO2 | AGO1 - AGO2 |
|-------------------------|-------------|-------------|--------------------|
| hsa-miR-571-4381016 | 30,506037 | 40 | -9,493963 |
| hsa-miR-29a-4395223 | 30,6825 | 40 | -9,3175 |
| hsa-miR-130b-4373144 | 30,797941 | 40 | -9,202059 |
| hsa-miR-345-4395297 | 31,028809 | 40 | -8,971191 |
| hsa-miR-192-4373108 | 31,08814 | 40 | -8,91186 |
| hsa-miR-30d-4373059 | 31,193106 | 40 | -8,806894 |
| hsa-miR-199a-3p-4395415 | 31,227825 | 40 | -8,772175 |
| hsa-miR-191-4395410 | 31,27179 | 40 | -8,72821 |
| hsa-miR-30d-4373059 | 31,285448 | 40 | -8,714552 |
| hsa-miR-376c-4395233 | 31,867203 | 40 | -8,132797 |
| hsa-miR-126-4395339 | 26,71944 | 28,9146 | -2,19516 |
| hsa-miR-122-4395356 | 28,284716 | 30,195011 | -1,910295 |
| hsa-miR-223-4395406 | 22,764011 | 24,62363 | -1,859619 |
| hsa-miR-222-4395387 | 27,202097 | 29,039618 | -1,837521 |
| hsa-miR-342-3p-4395371 | 29,224054 | 30,891607 | -1,667553 |
| hsa-miR-30e-4395334 | 29,548569 | 31,173983 | -1,625414 |
| hsa-miR-24-4373072 | 27,234488 | 28,839567 | -1,605079 |
| hsa-miR-21-4373090 | 28,284184 | 29,66935 | -1,385166 |
| hsa-miR-146a-4373132 | 26,597027 | 27,942255 | -1,345228 |
| hsa-miR-186-4395396 | 29,898129 | 30,80517 | -0,907041 |
| hsa-miR-27a-4373287 | 31,002213 | 31,81145 | -0,809237 |
| hsa-miR-484-4381032 | 28,525799 | 28,38211 | 0,143689 |
| hsa-miR-483-5p-4395449 | 30,961372 | 30,791077 | 0,170295 |
| hsa-miR-19b-4373098 | 26,139994 | 25,927797 | 0,212197 |
| hsa-miR-148a-4373130 | 30,52252 | 30,29786 | 0,22466 |
| hsa-miR-590-5p-4395176 | 31,939207 | 31,596146 | 0,343061 |
| hsa-miR-320-4395388 | 28,898619 | 28,51906 | 0,379559 |
| hsa-miR-19a-4373099 | 31,606236 | 29,919563 | 1,686673 |
| hsa-miR-92a-4395169 | 29,649073 | 27,718723 | 1,93035 |
| hsa-miR-20a-4373286 | 31,520672 | 28,89689 | 2,623782 |
| hsa-miR-17-4395419 | 31,485277 | 28,209812 | 3,275465 |
| hsa-miR-16-4373121 | 28,063223 | 24,528778 | 3,534445 |
| hsa-miR-451-4373360 | 30,714417 | 27,014977 | 3,69944 |
| hsa-miR-331-3p-4373046 | 40 | 31,923178 | 8,076822 |
| hsa-miR-106b-4373155 | 40 | 31,851334 | 8,148666 |
| hsa-miR-139-5p-4395400 | 40 | 31,849287 | 8,150713 |
| hsa-miR-93-4373302 | 40 | 31,810877 | 8,189123 |
| hsa-miR-27b-4373068 | 40 | 31,630398 | 8,369602 |
| hsa-miR-486-5p-4378096 | 40 | 31,598492 | 8,401508 |
| hsa-miR-206-4373092 | 40 | 31,540926 | 8,459074 |
| hsa-miR-25-4373071 | 40 | 31,056587 | 8,943413 |
| hsa-miR-195-4373105 | 40 | 30,453007 | 9,546993 |
| hsa-miR-106a-4395280 | 40 | 28,27824 | 11,72176 |

S4C: Correlation plot of AGO1 associated miRNAs in immunoprecipitates from blood plasmas of individual I and individual II (Raw Ct values).



S4D: Correlation plot of AGO2 associated miRNAs in immunoprecipitates from blood plasmas of individual I and individual II (Raw Ct values).



S5A: TaqMan miRNA Array data performed on AGO1 and AGO2 immunoprecipitates from blood pellet of individual II (Raw Ct values).

| miRNA | AGO1 | AGO2 | AGO1 - AGO2 |
|------------------------|-------------|-------------|--------------------|
| hsa-miR-381-4373020 | 25,638899 | 26,769968 | -1,131069 |
| hsa-miR-223-4395406 | 24,114365 | 23,128109 | 0,986256 |
| hsa-miR-150-4373127 | 31,82862 | 29,653612 | 2,175008 |
| hsa-miR-518b-4373246 | 30,480244 | 27,523252 | 2,956992 |
| hsa-miR-486-3p-4395204 | 31,806046 | 28,800121 | 3,005925 |
| hsa-miR-24-4373072 | 31,963638 | 26,249557 | 5,714081 |
| hsa-miR-222-4395387 | 31,076296 | 24,713171 | 6,363125 |
| hsa-miR-126-4395339 | 28,215988 | 21,795301 | 6,420687 |
| hsa-miR-142-3p-4373136 | 29,189371 | 22,749971 | 6,4394 |
| hsa-let-7g-4395393 | 31,423151 | 24,96223 | 6,460921 |
| hsa-miR-21-4373090 | 32,566227 | 25,868574 | 6,697653 |
| hsa-miR-26a-4395166 | 31,563404 | 24,787521 | 6,775883 |
| hsa-miR-19a-4373099 | 29,266283 | 22,251623 | 7,01466 |
| hsa-miR-191-4395410 | 29,9785 | 22,58621 | 7,39229 |
| hsa-miR-20a-4373286 | 28,585323 | 21,170233 | 7,41509 |
| hsa-let-7e-4395517 | 31,985735 | 24,531097 | 7,454638 |
| hsa-miR-19b-4373098 | 27,635164 | 19,745417 | 7,889747 |
| hsa-miR-17-4395419 | 27,961136 | 19,972717 | 7,988419 |
| hsa-miR-491-5p-4381053 | 40 | 31,85885 | 8,14115 |
| hsa-miR-335-4373045 | 40 | 31,8126 | 8,1874 |
| hsa-miR-27b-4373068 | 40 | 31,80964 | 8,19036 |
| hsa-miR-579-4395509 | 40 | 31,79431 | 8,20569 |
| hsa-miR-7-1*-4381118 | 40 | 31,75211 | 8,24789 |
| hsa-miR-7-4378130 | 40 | 31,714664 | 8,285336 |
| hsa-miR-502-5p-4373227 | 40 | 31,699446 | 8,300554 |
| hsa-miR-152-4395170 | 40 | 31,697948 | 8,302052 |
| hsa-miR-96-4373372 | 40 | 31,696957 | 8,303043 |
| hsa-miR-584-4381026 | 40 | 31,684319 | 8,315681 |
| hsa-miR-183*-4395381 | 40 | 31,653175 | 8,346825 |
| hsa-miR-106a-4395280 | 28,609055 | 20,25611 | 8,352945 |
| hsa-miR-215-4373084 | 40 | 31,618055 | 8,381945 |
| hsa-miR-545-4395378 | 40 | 31,608034 | 8,391966 |
| hsa-miR-422a-4395408 | 40 | 31,556896 | 8,443104 |
| hsa-miR-22-4373079 | 40 | 31,545897 | 8,454103 |
| hsa-miR-27a-4373287 | 40 | 31,394814 | 8,605186 |
| hsa-miR-484-4381032 | 30,887224 | 22,274061 | 8,613163 |
| hsa-miR-584-4381026 | 40 | 31,346266 | 8,653734 |
| hsa-miR-181a-4373117 | 40 | 31,33771 | 8,66229 |
| hsa-miR-339-3p-4395295 | 40 | 31,305653 | 8,694347 |
| hsa-miR-550*-4380954 | 40 | 31,111296 | 8,888704 |
| hsa-miR-339-5p-4395368 | 40 | 31,110083 | 8,889917 |
| hsa-miR-92a-4395169 | 31,703476 | 22,764513 | 8,938963 |
| hsa-miR-550-4395521 | 40 | 30,996109 | 9,003891 |
| hsa-miR-423-5p-4395451 | 40 | 30,904917 | 9,095083 |
| hsa-miR-93-4373302 | 31,86734 | 22,69103 | 9,17631 |
| hsa-miR-148b-4373129 | 40 | 30,797009 | 9,202991 |
| hsa-miR-30c-4373060 | 32,03026 | 22,793488 | 9,236772 |
| hsa-miR-130b-4373144 | 40 | 30,757254 | 9,242746 |
| hsa-miR-345-4395297 | 40 | 30,718964 | 9,281036 |
| hsa-miR-144*-4395259 | 30,060793 | 20,764874 | 9,295919 |
| hsa-miR-574-3p-4395460 | 40 | 30,644775 | 9,355225 |

| | | | |
|-------------------------|-----------|-----------|-----------|
| hsa-miR-98-4373009 | 40 | 30,615934 | 9,384066 |
| hsa-miR-18b-4395328 | 40 | 30,548227 | 9,451773 |
| hsa-miR-130a-4373145 | 40 | 30,423168 | 9,576832 |
| hsa-miR-598-4395179 | 40 | 30,403711 | 9,596289 |
| hsa-miR-183-4395380 | 40 | 30,343008 | 9,656992 |
| hsa-miR-340-4395369 | 40 | 30,279583 | 9,720417 |
| hsa-miR-15a*-4395530 | 40 | 30,276146 | 9,723854 |
| hsa-miR-362-5p-4378092 | 40 | 29,916864 | 10,083136 |
| hsa-miR-196b-4395326 | 40 | 29,89862 | 10,10138 |
| hsa-miR-328-4373049 | 40 | 29,896118 | 10,103882 |
| hsa-miR-451-4373360 | 30,520874 | 20,39169 | 10,129184 |
| hsa-miR-342-3p-4395371 | 40 | 29,860252 | 10,139748 |
| hsa-miR-363-4378090 | 40 | 29,845613 | 10,154387 |
| hsa-miR-142-5p-4395359 | 40 | 29,841791 | 10,158209 |
| hsa-miR-190-4373110 | 40 | 29,836325 | 10,163675 |
| hsa-miR-30e*-4373057 | 40 | 29,803423 | 10,196577 |
| hsa-miR-146a-4373132 | 40 | 29,759563 | 10,240437 |
| hsa-miR-182-4395445 | 40 | 29,754082 | 10,245918 |
| hsa-miR-29a-4395223 | 40 | 29,706394 | 10,293606 |
| hsa-miR-29c-4395171 | 40 | 29,688707 | 10,311293 |
| hsa-miR-148a-4373130 | 40 | 29,66976 | 10,33024 |
| hsa-miR-500-4395539 | 40 | 29,510494 | 10,489506 |
| hsa-miR-32-4395220 | 40 | 29,403378 | 10,596622 |
| hsa-miR-132-4373143 | 40 | 29,343214 | 10,656786 |
| hsa-miR-501-5p-4373226 | 40 | 29,302124 | 10,697876 |
| hsa-miR-16-4373121 | 28,625822 | 17,901983 | 10,723839 |
| hsa-miR-942-4395298 | 40 | 29,204826 | 10,795174 |
| hsa-miR-625*-4395543 | 40 | 29,005266 | 10,994734 |
| hsa-miR-486-5p-4378096 | 30,803997 | 19,708715 | 11,095282 |
| hsa-miR-210-4373089 | 40 | 28,518 | 11,482 |
| hsa-miR-146b-5p-4373178 | 40 | 28,355272 | 11,644728 |
| hsa-miR-15a-4373123 | 40 | 28,240925 | 11,759075 |
| hsa-miR-301a-4373064 | 40 | 28,188934 | 11,811066 |
| hsa-let-7f-4373164 | 40 | 28,086067 | 11,913933 |
| hsa-miR-15b*-4395284 | 40 | 28,012547 | 11,987453 |
| hsa-miR-532-3p-4395466 | 40 | 28,012493 | 11,987507 |
| hsa-miR-194-4373106 | 40 | 27,92964 | 12,07036 |
| hsa-miR-324-3p-4395272 | 40 | 27,84215 | 12,15785 |
| hsa-miR-103-4373158 | 40 | 27,592829 | 12,407171 |
| hsa-miR-101-4395364 | 40 | 27,5166 | 12,4834 |
| hsa-miR-30d-4373059 | 40 | 27,477182 | 12,522818 |
| hsa-miR-652-4395463 | 40 | 27,205982 | 12,794018 |
| hsa-miR-628-5p-4395544 | 40 | 27,140251 | 12,859749 |
| hsa-miR-30d-4373059 | 40 | 26,992323 | 13,007677 |
| hsa-miR-331-3p-4373046 | 40 | 26,976229 | 13,023771 |
| hsa-miR-126*-4373269 | 40 | 26,759695 | 13,240305 |
| hsa-miR-140-5p-4373374 | 40 | 26,747473 | 13,252527 |
| hsa-miR-18a-4395533 | 40 | 26,703035 | 13,296965 |
| hsa-miR-185-4395382 | 40 | 26,62977 | 13,37023 |
| hsa-let-7d-4395394 | 40 | 26,541643 | 13,458357 |
| hsa-miR-532-5p-4380928 | 40 | 26,518152 | 13,481848 |
| hsa-let-7a-4373169 | 40 | 26,470129 | 13,529871 |
| hsa-miR-590-5p-4395176 | 40 | 26,312796 | 13,687204 |
| hsa-miR-660-4380925 | 40 | 26,235348 | 13,764652 |
| hsa-miR-192-4373108 | 40 | 26,22943 | 13,77057 |

| | | | |
|------------------------|----|-----------|-----------|
| hsa-miR-140-3p-4395345 | 40 | 26,217299 | 13,782701 |
| hsa-miR-30a-4373061 | 40 | 26,14115 | 13,85885 |
| hsa-miR-93*-4395250 | 40 | 26,07145 | 13,92855 |
| hsa-miR-30e-4395334 | 40 | 25,564514 | 14,435486 |
| hsa-miR-374a-4373028 | 40 | 24,891895 | 15,108105 |
| hsa-miR-25-4373071 | 40 | 24,87833 | 15,12167 |
| hsa-miR-425-4380926 | 40 | 24,875147 | 15,124853 |
| hsa-miR-195-4373105 | 40 | 24,663609 | 15,336391 |
| hsa-miR-20b-4373263 | 40 | 24,56942 | 15,43058 |
| hsa-miR-186-4395396 | 40 | 24,421972 | 15,578028 |
| hsa-miR-106b-4373155 | 40 | 24,117083 | 15,882917 |
| hsa-miR-30b-4373290 | 40 | 24,106403 | 15,893597 |
| hsa-miR-374b-4381045 | 40 | 24,104197 | 15,895803 |
| hsa-let-7b-4395446 | 40 | 24,034248 | 15,965752 |
| hsa-miR-454-4395434 | 40 | 23,828272 | 16,171728 |
| hsa-miR-26b-4395167 | 40 | 23,441753 | 16,558247 |
| hsa-miR-320-4395388 | 40 | 23,231745 | 16,768255 |
| hsa-miR-15b-4373122 | 40 | 22,80338 | 17,19662 |
| hsa-miR-573-4381018 | 40 | 21,954771 | 18,045229 |
| hsa-miR-148b*-4395271 | 40 | 21,883987 | 18,116013 |
| hsa-miR-151-3p-4395365 | 40 | 21,748043 | 18,251957 |
| hsa-miR-378-4395354 | 40 | 17,609705 | 22,390295 |
| hsa-miR-513-3p-4395202 | 40 | 15,115705 | 24,884295 |

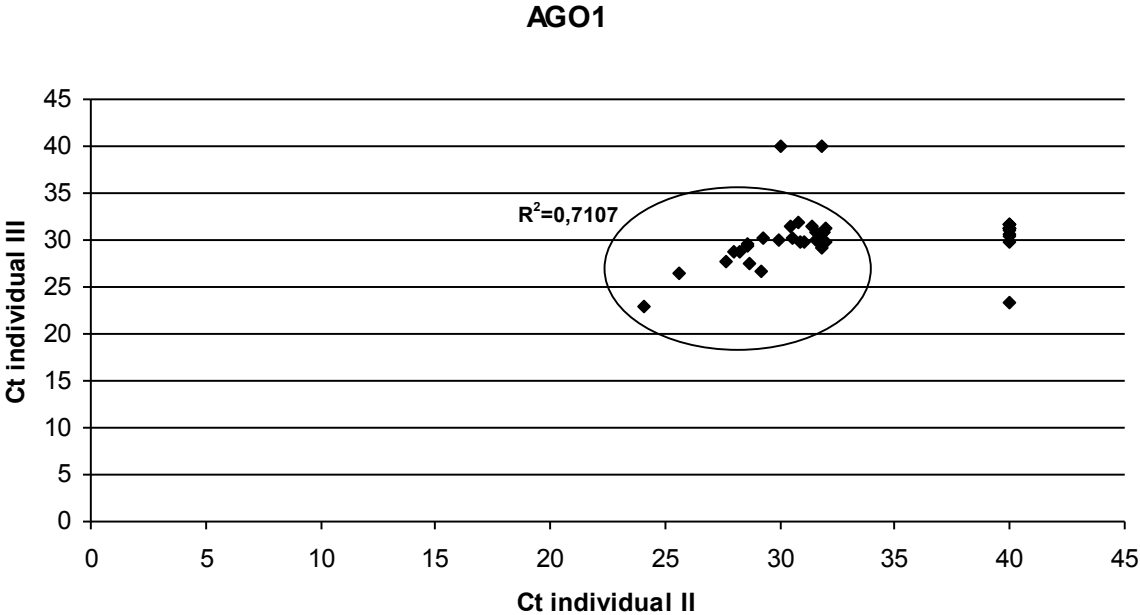
S5B: TaqMan miRNA Array data performed on AGO1 and AGO2 immunoprecipitates from blood pellet of individual III (Raw Ct values).

| miRNA | AGO1 | AGO2 | AGO1-AGO2 |
|-------------------------|-------------|-------------|------------------|
| hsa-miR-199a-3p-4395415 | 31,168928 | 40 | -8,831072 |
| hsa-miR-145-4395389 | 31,632622 | 40 | -8,367378 |
| hsa-miR-223-4395406 | 22,849426 | 23,605043 | -0,755617 |
| hsa-miR-518b-4373246 | 31,433933 | 31,972694 | -0,538761 |
| hsa-miR-381-4373020 | 26,417217 | 26,895527 | -0,47831 |
| hsa-miR-628-5p-4395544 | 29,846243 | 29,96584 | -0,119597 |
| hsa-miR-150-4373127 | 29,263773 | 29,3197 | -0,055927 |
| hsa-miR-513-3p-4395202 | 15,643252 | 15,628298 | 0,014954 |
| hsa-miR-378-4395354 | 17,990673 | 17,916517 | 0,074156 |
| hsa-miR-573-4381018 | 24,39858 | 24,170496 | 0,228084 |
| hsa-miR-27a-4373287 | 30,719912 | 30,270973 | 0,448939 |
| hsa-miR-151-3p-4395365 | 23,401949 | 22,738398 | 0,663551 |
| hsa-miR-146a-4373132 | 30,954912 | 29,773336 | 1,181576 |
| hsa-miR-29a-4395223 | 30,442215 | 28,790747 | 1,651468 |
| hsa-miR-342-3p-4395371 | 31,650774 | 29,504938 | 2,145836 |
| hsa-miR-24-4373072 | 29,739359 | 27,123766 | 2,615593 |
| hsa-miR-222-4395387 | 29,77073 | 25,663511 | 4,107219 |
| hsa-miR-26a-4395166 | 29,898905 | 25,146996 | 4,751909 |
| hsa-miR-142-3p-4373136 | 26,595486 | 21,472414 | 5,123072 |
| hsa-miR-186-4395396 | 31,563702 | 26,239763 | 5,323939 |
| hsa-miR-21-4373090 | 30,854717 | 25,036896 | 5,817821 |
| hsa-miR-191-4395410 | 29,90711 | 23,987335 | 5,919775 |
| hsa-miR-126-4395339 | 28,738089 | 22,786638 | 5,951451 |
| hsa-miR-484-4381032 | 29,856455 | 23,391188 | 6,465267 |
| hsa-let-7e-4395517 | 31,173992 | 24,487158 | 6,686834 |
| hsa-miR-19a-4373099 | 30,122663 | 23,356747 | 6,765916 |
| hsa-miR-106b-4373155 | 31,32993 | 24,39331 | 6,93662 |
| hsa-miR-30c-4373060 | 30,750818 | 23,570463 | 7,180355 |
| hsa-let-7b-4395446 | 31,47889 | 24,157877 | 7,321013 |
| hsa-miR-19b-4373098 | 27,62679 | 20,304308 | 7,322482 |
| hsa-miR-26b-4395167 | 31,213076 | 23,825115 | 7,387961 |
| hsa-let-7g-4395393 | 31,5353 | 24,133736 | 7,401564 |
| hsa-miR-17-4395419 | 28,7818 | 21,329924 | 7,451876 |
| hsa-miR-20a-4373286 | 29,38919 | 21,714304 | 7,674886 |
| hsa-miR-106a-4395280 | 29,540714 | 21,700811 | 7,839903 |
| hsa-miR-93-4373302 | 30,870228 | 22,964115 | 7,906113 |
| hsa-miR-29b-4373288 | 40 | 31,98894 | 8,01106 |
| hsa-miR-152-4395170 | 40 | 31,969595 | 8,030405 |
| hsa-miR-92a-4395169 | 30,702091 | 22,602629 | 8,099462 |
| hsa-miR-598-4395179 | 40 | 31,886284 | 8,113716 |
| hsa-miR-128-4395327 | 40 | 31,871023 | 8,128977 |
| hsa-miR-215-4373084 | 40 | 31,794565 | 8,205435 |
| hsa-miR-125b-4373148 | 40 | 31,75251 | 8,24749 |
| hsa-miR-339-5p-4395368 | 40 | 31,699211 | 8,300789 |
| hsa-miR-15b-4373122 | 31,165247 | 22,830708 | 8,334539 |
| hsa-miR-629-4395547 | 40 | 31,628384 | 8,371616 |
| hsa-miR-15a*-4395530 | 40 | 31,615097 | 8,384903 |
| hsa-miR-101*-4395254 | 40 | 31,541912 | 8,458088 |
| hsa-miR-32-4395220 | 40 | 31,511496 | 8,488504 |
| hsa-miR-886-5p-4395304 | 40 | 31,31994 | 8,68006 |
| hsa-miR-96-4373372 | 40 | 31,25358 | 8,74642 |

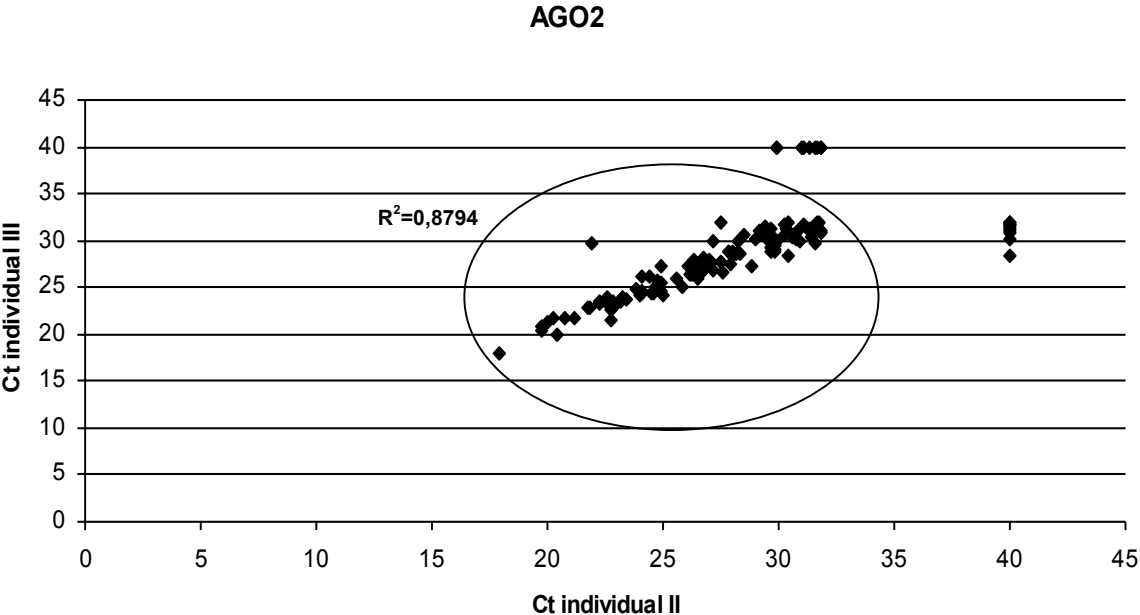
| | | | |
|-------------------------|-----------|-----------|-----------|
| hsa-miR-501-5p-4373226 | 40 | 31,213331 | 8,786669 |
| hsa-miR-7-4378130 | 40 | 31,19789 | 8,80211 |
| hsa-miR-183-4395380 | 40 | 31,180677 | 8,819323 |
| hsa-miR-584-4381026 | 40 | 31,169502 | 8,830498 |
| hsa-miR-29c-4395171 | 40 | 31,149374 | 8,850626 |
| hsa-miR-20a*-4395548 | 40 | 31,121347 | 8,878653 |
| hsa-miR-335-4373045 | 40 | 31,103786 | 8,896214 |
| hsa-miR-148b-4373129 | 40 | 30,995043 | 9,004957 |
| hsa-miR-942-4395298 | 40 | 30,943277 | 9,056723 |
| hsa-miR-181a-4373117 | 40 | 30,929596 | 9,070404 |
| hsa-miR-579-4395509 | 40 | 30,838549 | 9,161451 |
| hsa-miR-345-4395297 | 40 | 30,814535 | 9,185465 |
| hsa-miR-296-5p-4373066 | 40 | 30,72054 | 9,27946 |
| hsa-miR-132-4373143 | 40 | 30,658602 | 9,341398 |
| hsa-miR-210-4373089 | 40 | 30,622747 | 9,377253 |
| hsa-miR-98-4373009 | 40 | 30,59017 | 9,40983 |
| hsa-miR-574-3p-4395460 | 40 | 30,538555 | 9,461445 |
| hsa-miR-340-4395369 | 40 | 30,486877 | 9,513123 |
| hsa-miR-16-4373121 | 27,447495 | 17,890827 | 9,556668 |
| hsa-miR-18b-4395328 | 40 | 30,408611 | 9,591389 |
| hsa-miR-182-4395445 | 40 | 30,303276 | 9,696724 |
| hsa-miR-625*-4395543 | 40 | 30,20362 | 9,79638 |
| hsa-miR-500-4395539 | 40 | 30,14331 | 9,85669 |
| hsa-miR-99a-4373008 | 40 | 30,088911 | 9,911089 |
| hsa-miR-130b-4373144 | 40 | 30,069412 | 9,930588 |
| hsa-miR-328-4373049 | 40 | 29,999636 | 10,000364 |
| hsa-miR-15a-4373123 | 40 | 29,950457 | 10,049543 |
| hsa-miR-148a-4373130 | 40 | 29,894688 | 10,105312 |
| hsa-miR-423-5p-4395451 | 40 | 29,874271 | 10,125729 |
| hsa-miR-363-4378090 | 40 | 29,77044 | 10,22956 |
| hsa-miR-22-4373079 | 40 | 29,75304 | 10,24696 |
| hsa-miR-148b*-4395271 | 40 | 29,671225 | 10,328775 |
| hsa-miR-451-4373360 | 30,25624 | 19,858637 | 10,397603 |
| hsa-miR-30e*-4373057 | 40 | 29,557474 | 10,442526 |
| hsa-miR-190-4373110 | 40 | 28,976349 | 11,023651 |
| hsa-miR-486-5p-4378096 | 31,908915 | 20,884706 | 11,024209 |
| hsa-miR-15b*-4395284 | 40 | 28,842974 | 11,157026 |
| hsa-miR-324-3p-4395272 | 40 | 28,83671 | 11,16329 |
| hsa-miR-142-5p-4395359 | 40 | 28,711683 | 11,288317 |
| hsa-let-7f-4373164 | 40 | 28,580782 | 11,419218 |
| hsa-miR-301a-4373064 | 40 | 28,561148 | 11,438852 |
| hsa-miR-146b-5p-4373178 | 40 | 28,52478 | 11,47522 |
| hsa-miR-130a-4373145 | 40 | 28,481104 | 11,518896 |
| hsa-miR-100-4373160 | 40 | 28,362228 | 11,637772 |
| hsa-miR-532-3p-4395466 | 40 | 28,29889 | 11,70111 |
| hsa-miR-126*-4373269 | 40 | 28,205154 | 11,794846 |
| hsa-miR-331-3p-4373046 | 40 | 28,024942 | 11,975058 |
| hsa-miR-590-5p-4395176 | 40 | 27,925085 | 12,074915 |
| hsa-miR-101-4395364 | 40 | 27,80815 | 12,19185 |
| hsa-miR-140-5p-4373374 | 40 | 27,68894 | 12,31106 |
| hsa-miR-30d-4373059 | 40 | 27,678032 | 12,321968 |
| hsa-miR-30d-4373059 | 40 | 27,535547 | 12,464453 |
| hsa-miR-194-4373106 | 40 | 27,518944 | 12,481056 |
| hsa-miR-140-3p-4395345 | 40 | 27,348917 | 12,651083 |
| hsa-miR-425-4380926 | 40 | 27,276228 | 12,723772 |
| hsa-miR-93*-4395250 | 40 | 27,25437 | 12,74563 |

| | | | |
|------------------------|----|-----------|-----------|
| hsa-miR-486-3p-4395204 | 40 | 27,21634 | 12,78366 |
| hsa-miR-532-5p-4380928 | 40 | 27,211712 | 12,788288 |
| hsa-miR-185-4395382 | 40 | 26,98771 | 13,01229 |
| hsa-miR-652-4395463 | 40 | 26,896616 | 13,103384 |
| hsa-miR-18a-4395533 | 40 | 26,701378 | 13,298622 |
| hsa-miR-103-4373158 | 40 | 26,68623 | 13,31377 |
| hsa-miR-660-4380925 | 40 | 26,58988 | 13,41012 |
| hsa-miR-192-4373108 | 40 | 26,412561 | 13,587439 |
| hsa-miR-30a-4373061 | 40 | 26,331047 | 13,668953 |
| hsa-let-7d-4395394 | 40 | 26,267761 | 13,732239 |
| hsa-miR-374b-4381045 | 40 | 26,125736 | 13,874264 |
| hsa-let-7a-4373169 | 40 | 25,974287 | 14,025713 |
| hsa-miR-30e-4395334 | 40 | 25,872934 | 14,127066 |
| hsa-miR-374a-4373028 | 40 | 25,533169 | 14,466831 |
| hsa-miR-195-4373105 | 40 | 25,151546 | 14,848454 |
| hsa-miR-454-4395434 | 40 | 24,725885 | 15,274115 |
| hsa-miR-25-4373071 | 40 | 24,713589 | 15,286411 |
| hsa-miR-30b-4373290 | 40 | 24,509619 | 15,490381 |
| hsa-miR-20b-4373263 | 40 | 24,385462 | 15,614538 |
| hsa-miR-320-4395388 | 40 | 23,8335 | 16,1665 |
| hsa-miR-144*-4395259 | 40 | 21,740314 | 18,259686 |

S5C: Correlation plot of AGO1 associated miRNAs in immunoprecipitates from blood pellets of individual II and individual III (Raw Ct values).



S5D: Correlation plot of AGO2 associated miRNAs in immunoprecipitates from blood pellets of individual II and individual III (Raw Ct values).



S6: miRNA-146a TaqMan miRNA Assays performed on anti-AGO1, anti-AGO2 or anti- α -tubulin immunoprecipitates from blood plasmas and blood pellets of two different individuals. The data presented as mean Ct values (+SD) normalized on cel-mir-39 spiked in control

