



Supplemental Figure 1: **A)** IPA generated network of the differentially expressed miRNAs between the $HNF4\alpha^{+/Δ}$ mutation and control cells during early differentiation. **B-D)** IPA generated networks of the differentially expressed miRNAs between the $HNF4\alpha^{+/Δ}$ mutation and control cells during the late differentiation window.

Table S1: List of differentially expressed miRNAs (DEmiRs):

| CONTROL CELLS (EARLY vs LATE DIFFERENTIATION) | HNF4α+/Δ CELLS (EARLY vs LATE DIFFERENTIATION) | EARLY DIFFERENTIATION (HNF4α+/Δ vs CONTROL) | LATE DIFFERENTIATION (HNF4α+/Δ vs CONTROL) |
|---|--|--|--|
| hsa-miR-1261 | hsa-miR-1281 | hsa-miR-488-3p | hsa-miR-34c-3p |
| hsa-miR-761 | hsa-miR-608 | hsa-miR-223-3p | hsa-miR-576-5p |
| hsa-let-7d-5p | hsa-miR-138-5p | hsa-miR-761 | hsa-miR-664b-3p |
| hsa-miR-519d-3p | hsa-miR-1257 | hsa-miR-142-3p | hsa-miR-325 |
| hsa-miR-595 | hsa-miR-489-3p | hsa-miR-555 | hsa-miR-758-5p |
| hsa-miR-770-5p | hsa-miR-215-5p | hsa-miR-520c-3p | hsa-miR-195-5p |
| hsa-miR-517c-3p+hsa-miR-519a-3p | hsa-miR-1972 | hsa-miR-521 | hsa-miR-518b |
| hsa-miR-572 | hsa-let-7d-5p | hsa-miR-1261 | hsa-miR-146b-5p |
| hsa-miR-1307-5p | hsa-miR-212-3p | hsa-miR-770-5p | hsa-miR-142-3p |
| hsa-miR-520a-5p | hsa-miR-548ah-5p | hsa-miR-1236-3p | hsa-miR-941 |
| hsa-miR-373-3p | hsa-miR-498 | hsa-miR-514a-3p | hsa-miR-181b-2-3p |
| hsa-miR-223-3p | hsa-miR-512-5p | hsa-miR-1307-5p | hsa-miR-555 |
| hsa-miR-4485-3p | hsa-miR-302a-5p | hsa-miR-595 | hsa-miR-221-5p |
| hsa-miR-1236-3p | hsa-miR-373-3p | hsa-miR-572 | hsa-miR-608 |
| hsa-miR-514a-3p | hsa-miR-1307-3p | hsa-miR-325 | hsa-miR-499a-5p |
| hsa-miR-520c-3p | hsa-miR-1323 | hsa-miR-3180 | hsa-miR-548d-5p |
| hsa-miR-3180 | hsa-miR-488-3p | hsa-miR-210-3p | hsa-miR-138-5p |
| hsa-miR-1257 | hsa-miR-329-3p | hsa-miR-299-3p | hsa-miR-1224-5p |
| hsa-miR-142-3p | hsa-miR-383-5p | hsa-miR-320a | hsa-miR-105-5p |
| hsa-miR-1281 | hsa-miR-889-3p | hsa-miR-651-5p | hsa-miR-489-3p |
| hsa-miR-608 | hsa-miR-760 | hsa-miR-577 | hsa-miR-330-3p |
| hsa-miR-138-5p | hsa-miR-301b-5p | hsa-miR-122-5p | hsa-miR-215-5p |
| hsa-miR-325 | hsa-miR-542-3p | hsa-miR-100-5p | hsa-miR-760 |
| hsa-miR-372-3p | hsa-miR-941 | hsa-miR-181a-5p hsa-miR-199a-3p+hsa-miR-199b-3p | hsa-miR-1972 hsa-miR-34c-5p |
| hsa-miR-521 | hsa-miR-887-5p | hsa-miR-199a-5p | hsa-miR-548d-3p hsa-miR-193a-5p+hsa-miR-193b-5p |
| hsa-miR-215-5p | hsa-miR-654-5p | hsa-miR-10b-5p | hsa-miR-330-5p |
| hsa-miR-489-3p | hsa-miR-654-3p | hsa-miR-214-3p | hsa-miR-548ah-5p |
| hsa-miR-1972 | hsa-miR-1185-1-3p | hsa-miR-491-5p | hsa-miR-212-3p |
| hsa-miR-212-3p | hsa-miR-2682-5p | hsa-miR-10a-5p | hsa-miR-1305 |
| hsa-miR-548ah-5p | hsa-miR-615-3p | hsa-miR-181a-3p | hsa-miR-212-3p |
| hsa-miR-1298-5p | hsa-miR-490-3p | hsa-miR-10a-5p | hsa-miR-1305 |
| hsa-let-7g-5p | hsa-miR-4707-5p | hsa-let-7g-5p | hsa-miR-521 |
| hsa-let-7c-5p | hsa-miR-409-5p | hsa-let-7d-5p | hsa-let-7i-5p |
| hsa-miR-485-3p | hsa-miR-377-3p | hsa-let-7c-5p | hsa-miR-199a-5p |
| hsa-miR-299-5p | hsa-miR-499a-5p | | hsa-let-7b-5p |
| hsa-let-7f-5p | hsa-miR-221-5p | | hsa-miR-378g |
| hsa-miR-105-5p | hsa-miR-1224-5p | | hsa-miR-1323 |
| hsa-miR-664b-3p | hsa-miR-330-3p | | hsa-let-7a-5p |
| hsa-miR-576-5p | hsa-miR-146b-5p | | hsa-miR-206 |
| hsa-miR-324-3p | hsa-miR-30a-5p | | hsa-miR-372-3p |
| hsa-miR-10a-5p | hsa-miR-345-5p | | hsa-let-7f-5p |

| | | |
|-----------------|-----------------|--|
| hsa-miR-491-5p | hsa-miR-1260b | hsa-miR-496 |
| hsa-miR-206 | hsa-miR-210-3p | hsa-let-7g-5p |
| hsa-miR-496 | hsa-miR-378g | hsa-let-7c-5p |
| hsa-miR-499a-5p | hsa-miR-200a-3p | hsa-miR-324-3p |
| hsa-miR-221-5p | hsa-miR-95-3p | hsa-miR-4531 |
| hsa-miR-1224-5p | hsa-miR-362-3p | hsa-miR-383-5p |
| hsa-miR-330-3p | hsa-miR-483-3p | hsa-miR-887-5p |
| hsa-miR-146b-5p | hsa-miR-141-3p | hsa-miR-548y |
| hsa-miR-95-3p | hsa-miR-10b-5p | hsa-miR-520a-5p |
| hsa-miR-744-5p | hsa-miR-10a-5p | hsa-miR-432-5p |
| hsa-miR-10b-5p | hsa-miR-521 | hsa-miR-4485-3p |
| | hsa-miR-206 | hsa-miR-498 |
| | hsa-miR-29c-3p | hsa-miR-373-3p |
| | hsa-miR-381-3p | hsa-miR-196a-5p |
| | hsa-miR-429 | hsa-miR-370-3p |
| | hsa-miR-555 | hsa-miR-514b-5p |
| | hsa-miR-330-5p | hsa-miR-1197 |
| | hsa-miR-496 | hsa-miR-139-3p |
| | hsa-miR-190a-5p | hsa-miR-98-5p |
| | hsa-miR-337-5p | hsa-miR-381-3p |
| | hsa-miR-491-5p | hsa-miR-214-3p |
| | hsa-miR-433-3p | hsa-miR-431-5p |
| | | hsa-miR-1253 |
| | | hsa-miR-519d-3p |
| | | hsa-miR-889-3p |
| | | hsa-miR-181a-3p |
| | | hsa-miR-888-5p |
| | | hsa-miR-526a+hsa-miR-518c-5p+hsa-miR-518d-5p |
| | | hsa-miR-517c-3p+hsa-miR-519a-3p |
| | | hsa-miR-548e-5p |
| | | hsa-miR-891b |
| | | hsa-miR-654-5p |
| | | hsa-miR-512-5p |
| | | hsa-miR-329-3p |
| | | hsa-miR-654-3p |
| | | hsa-miR-1185-1-3p |
| | | hsa-miR-4707-5p |
| | | hsa-miR-563 |
| | | hsa-miR-585-3p |
| | | hsa-miR-495-5p |
| | | hsa-miR-1185-2-3p |
| | | hsa-miR-615-3p |
| | | hsa-miR-2682-5p |
| | | hsa-miR-518e-3p |
| | | hsa-miR-513a-3p |

hsa-miR-208b-3p
hsa-miR-301b-5p
hsa-miR-369-3p
hsa-miR-4536-5p
hsa-miR-363-5p
hsa-miR-490-3p
hsa-miR-515-5p
hsa-miR-5196-3p+hsa-miR-6732-3p
hsa-miR-409-5p
hsa-miR-525-5p
hsa-miR-526b-5p
hsa-let-7d-5p
hsa-miR-377-3p
hsa-miR-512-3p
hsa-miR-433-3p
hsa-miR-337-5p
hsa-miR-181a-2-3p
hsa-miR-196b-5p