## **Supplemental Table A.** microRNAs in Introns of Protein Coding Genes

| microRNA                      | miR Copy<br>Number<br>(identical) | miR Chr<br>Location | Host Gene/TU                           | Host Gene/TU Details  | microRNA<br>Mapping Position<br>Wthin Host Gene | Host Gene Expression                                  | Expression Source/Ref  |
|-------------------------------|-----------------------------------|---------------------|--|---|---|---|--|
|                               |                                   |                     |  |   |   |   |  |
| hsa-let-7f-2                  | 2                                 | х                   | ENSG00000086758                        | UPSTREAM REGULATORY ELEMENT BINDING PROTEIN 1; HECT DOMAIN PROTEIN LASU1; BJ-HCC-24 TUMOR ANTIGEN. UREB1 [Source:RefSeq;Acc:NM_031407] UPSTREAM REGULATORY ELEMENT BINDING PROTEIN 1; HECT DOMAIN PROTEIN LASU1; BJ-HCC-24 TUMOR ANTIGEN. UREB1 | Within Intron 32                                |   |  |
| hsa-miR-98                    | 1                                 | X                   | ENSG00000086758                        | [Source:RefSeq;Acc:NM_031407]   | Within Intron 32                                |   |  |
| mmu-let-7f-2                  | 2                                 | Х                   | 0/ENSMUSG00000025261                   | UPSTREAM REGULATORY ELEMENT<br>BINDING PROTEIN 1 (FRAGMENT). Ureb1<br>[Source: SPTREMBL (Q8BNJ7)]<br>UPSTREAM REGULATORY ELEMENT  | Within Intron 3                                 | Widely Expressed                                      | Affy U74A: 96664_at  |
| mmu-miR-98                    | 1                                 | Х                   |  | BINDING PROTEIN 1 (FRAGMENT). Ureb1 [Source: SPTREMBL (Q8BNJ7)]   | Within Intron 3                                 | Widely Expressed                                      | Affy U74A: 96664_at  |
|                               |                                   |                     |  |   |   |   |  |
| hsa-let-7g                    | 1                                 | 3                   | ENSG00000164091/ENSES<br>TG00000005722 | Novel Protein (INTERPRO: IPR001680 G-<br>protein beta WD-40 repeat)   | Within Intron 2                                 |   |  |
| mmu-let-7g                    | 1                                 | 9                   | ENSMUSG00000020257                     | Novel Protein (INTERPRO: IPR001680 G-protein beta WD-40 repeat)   | Within Intron 2                                 | Enriched in the cerebellum. Also expressed in thymus. | Affy U74A: 96924_at  |
|                               |                                   |                     |  |   |   |   |  |
| hsa-miR-1-1<br>hsa-miR-133a-2 | 2<br>2                            | 20<br>20            | ENSG00000174407<br>ENSG00000174407     | Novel Protein (C20orf166)<br>Novel Protein (C20orf166)  | Within Intron 2<br>Within Intron 1              |   |  |
| mmu-miR-1-1<br>mmu-miR-133a-2 | 2                                 | 2                   |  |   | undefined                                       |   |  |
| predicted                     | 2                                 | 2                   |  |   | undefined                                       |   |  |
|                               |                                   |                     |  |   |   |   |  |
|                               |                                   |                     |  | PITUITARY GLAND SPECIFIC FACTOR 1A.   |   | pituitary gland. Lesser                               | Tanaka S, Tatsumi K,<br>Okubo K, Itoh K,<br>Kawamoto S,<br>Matsubara K, Amino N.<br>Expression profile of<br>active genes in the<br>human pituitary gland.<br>J Mol Endocrinol. 2002 |
| hsa-miR-7-3                   | 3                                 | 19                  | ENSG00000176840                        | [Source:RefSeq;Acc:NM_174947]   | Within Intron 2                                 | expression in the pancreas                            | Feb;28(1):33-44  |
| mmu-miR-7b                    | 3                                 | 17                  |  |   | undefined                                       |   |  |

| hsa-miR-9-1<br>hsa-miR-9*-1 | 3 | 1  | ENSG00000125462 ENSG00000125462    | TRANSCRIPTIONAL ACTIVATOR OF THE C-FOS PROMOTER. CROC4 [Source: RefSeq (NM_006365)] TRANSCRIPTIONAL ACTIVATOR OF THE C-FOS PROMOTER. CROC4 [Source: RefSeq (NM_006365)] | Within Intron 2    | Brain specific. Enriched in proliferating and migrating brain cells | Jeffrey PL, Capes-Davis A, Dunn JM, Tolhurst O, Seeto G, Hannan AJ, Lin SL. CROC-4: a novel brain specific transcriptional activator of c-fos expressed from proliferation through to maturation of multiple neuronal cell types. Mol Cell Neurosci. 2000 Sep;16(3):185-96 |
|-----------------------------|---|----|------------------------------------|---|--------------------|---|--|
| IISa-IIIIK-9**-1            | 3 | 1  | ENSMUSESTG000000550                | · - /-  | WILIIII IIILIOII Z | Same  | Same   |
| mmu-miR-9-1                 | 3 | 3  | 2 MBuild30<br>ENSMUSESTG0000000550 |   | Within Intron 2    |   |  |
| mmu-miR-9*-1                | 3 | 3  | 2 MBuild30                         |   | Within Intron 2    |   |  |
|                             |   |    |                                    |   |                    |   |  |
|                             |   |    | LOC254559/hineri                   |   |                    |   |  |
| hsa-miR-9-3                 | 3 | 15 | AceView<br>LOC254559/hineri        | Novel Protein   | Within Intron 1    | Expressed at high levels  | Aceview/Acembly  |
| hsa-miR-9*-3                | 3 | 15 | AceView                            | Novel Protein   | Within Intron 1    | same  | same   |
|                             | _ | _  | ENSMUSESTG0000000740               |   |                    |   |  |
| mmu-miR-9-3                 | 3 | 7  | 8 FNCMUSESTC000000740              | Novel Protein   | Within Intron 1    |   |  |
| mmu-miR-9*-3                | 3 | 7  | ENSMUSESTG0000000740               | Novel Protein   | Within Intron 1    |   |  |
|                             |   |    |                                    |   |                    |   |  |
|                             |   |    |                                    |   | Just upstream of   |   |  |
|                             |   |    |                                    | HOMEOBOX PROTEIN HOX-D4 (HOX-4B)  | presently          |   |  |
|                             |   |    |                                    | (HOX-5.1) (HHO.C13). [Source:   | annotated HOXD4    |   |  |

| mmu-miR-10b  | 2 | 2  | ENSMUSG00000042464  | HOMEOBOX PROTEIN HOX-D4 (HOX-4.2) (HOX-5.1). [Source:SWISSPROT;Acc:P10628]  | Within Intron 4 | In the embryo expressed in<br>the presumptive hindbrain<br>and spinal cord,<br>prevertebrae, and other<br>tissues. In the adult,<br>expressed predominantly in<br>the testis and kidney, and<br>to a lesser extent in<br>intestine and heart | homeotic<br>transformations of the<br>axial skeleton:<br>evidence for unique |
|--|---|----|---------------------|---|-----------------|--|--|
| hsa-miR-15b  | 2 | 3  | ENSG00000113810     | STRUCTURAL MAINTENANCE OF<br>CHROMOSOMES 4-LIKE 1 PROTEIN<br>(CHROMOSOME- ASSOCIATED<br>POLYPEPTIDE C) (HCAP-C) (XCAP-C<br>HOMOLOG). SMC4L1<br>[Source:SWISSPROT;Acc:Q9NTJ3]<br>STRUCTURAL MAINTENANCE OF | Within Intron 4 | Widely expressed. Higher expression in testis, colon, thymus.  | SWISSPROT  |
| hsa-miR-16-2   | 2 | 3  | ENSG00000113810     | CHROMOSOMES 4-LIKE 1 PROTEIN<br>(CHROMOSOME- ASSOCIATED<br>POLYPEPTIDE C) (HCAP-C) (XCAP-C<br>HOMOLOG). SMC4L1<br>[Source:SWISSPROT;Acc:Q9NTJ3]   | Within Intron 4 | Widely expressed. Higher expression in testis, colon, thymus.  | SWISSPROT  |
| mmu-miR-15b  | 2 | 3  | ENSMUSG00000034349  | STRUCTURAL MAINTENANCE OF<br>CHROMOSOMES 4-LIKE 1 PROTEIN<br>(CHROMOSOME- ASSOCIATED<br>POLYPEPTIDE C) (XCAP-C HOMOLOG).<br>[Source:SWISSPROT;Acc:Q8CG47]   | Within Intron 4 |  |  |
| mmu-miR-16-2   | 2 | 3  | ENSMUSG00000034349  | STRUCTURAL MAINTENANCE OF<br>CHROMOSOMES 4-LIKE 1 PROTEIN<br>(CHROMOSOME- ASSOCIATED<br>POLYPEPTIDE C) (XCAP-C HOMOLOG).<br>[Source:SWISSPROT;Acc:Q8CG47]   | Within Intron 4 |  |  |
|  |   |    |                     |   |                 |  |  |
| hsa-miR-17-5p  | 3 | 13 | OTTHUMG00000017195  | Novel Protein (Vega: bA121J7.2)   | Within Intron 2 |  |  |
| hsa-miR-17-3p  | 3 | 13 | OTTHUMG00000017195  | Novel Protein (Vega: bA121J7.2)   | Within Intron 2 |  |  |
|  |   |    |                     | ,   | Within Intron 2 |  |  |
|  |   |    |                     | ,   |                 |  |  |
|  |   |    |                     | ,   |                 |  |  |
| hsa-miR-190-1  | 3 | 13 | OTTHUMG00000017195  | Novel Protein (Vega: bA121J7.2)  Novel Protein (Vega: bA121J7.2)  | Within Intron 2 |  |  |
| mmu-miR-17-5p  | 1 | 14 | 0.11101100000017133 |   | undefined       |  |  |
| mmu-miR-17-3p  | 1 | 14 |                     |   | undefined       |  |  |
| mmu-miR-18   | 1 | 14 |                     |   | undefined       |  |  |
| the state of the s |   |    |                     | ,   | Within Intron 2 |  |  |

| mmu-miR-19a<br>mmu-miR-20<br>mmu-miR-19b-1<br>mmu-miR-92-1 | 2<br>1<br>2<br>2 | 14<br>14<br>14<br>14 |  |  | undefined<br>undefined<br>undefined<br>undefined |   |   |
|--|------------------|----------------------|--|--|--|---|---|
|  |                  |                      |  |  |  |   |   |
| hsa-miR-23b  | 2                | 9                    | OTTHUMG00000020276/E<br>NSG00000148120 | Novel Protein (C9orf3) Peptidase M1,<br>membrane alanine aminopeptidase motif<br>(Interpro: IPR001930) | Within Intron 12                                 | High expression in uterus<br>and heart. Moderately<br>expressed elsewhere                             | Affy U95A: 41207_at   |
| hsa-miR-27b  | 2                | 9                    | OTTHUMG00000020276/E<br>NSG00000148120 | Novel Protein (C9orf3) Peptidase M1,<br>membrane alanine aminopeptidase motif<br>(Interpro: IPR001930) | Within Intron 12                                 | High expression in uterus and heart. Moderately expressed elsewhere                                   | Affy U95A: 41207_at   |
| mmu-miR-23b  | 2                | 13                   | ENSMUSG00000056748                     | Novel Protein (Q8BHX5) Peptidase M1,<br>membrane alanine aminopeptidase motif<br>(Interpro: IPR001930) | Within Intron 5                                  |   |   |
| mmu-miR-27b  | 2                | 13                   | ENSMUSG00000056748                     | Novel Protein (Q8BHX5) Peptidase M1, membrane alanine aminopeptidase motif (Interpro: IPR001930)       | Within Intron 5                                  |   |   |
|  |                  |                      |  |  |  |   |   |
|  |                  |                      |  | DNA REPLICATION LICENSING FACTOR MCM7 (CDC47 HOMOLOG) (P1.1-MCM3).                                     |  | Widely expressed with<br>highest expression in<br>proliferating cells;<br>upregulated just prior to S | Affy U95a: 947_at;<br>Fujita, M., Kiyono, T.,<br>Hayashi, Y. and<br>Ishibashi, M. (1996)<br>hCDC47, a human<br>member of the MCM<br>family. Dissociation of<br>the nucleus-bound<br>form during S phase. J<br>Biol Chem, 271, 4349- |
| hsa-miR-25   | 1                | 7                    | NSG00000166508                         | [Source:SWISSPROT;Acc:P33993]  | Within Intron 13                                 | phase of cell cycle   | 4354  |
| hsa-miR-93   | 1                | 7                    | OTTHUMG00000023308/E<br>NSG00000166508 | DNA REPLICATION LICENSING FACTOR MCM7 (CDC47 HOMOLOG) (P1.1-MCM3). [Source:SWISSPROT;Acc:P33993]       | Within Intron 13                                 | same  | same  |
| hsa-miR-106b   | 2                | 7                    | OTTHUMG00000023308/E<br>NSG00000166508 | DNA REPLICATION LICENSING FACTOR MCM7 (CDC47 HOMOLOG) (P1.1-MCM3). [Source:SWISSPROT;Acc:P33993]       | Within Intron 13                                 | same  | same  |
| mmu-miR-25   | 1                | 5                    | ENSMUSG00000029730                     | DNA REPLICATION LICENSING FACTOR<br>MCM7 (CDC47 HOMOLOG). MCM7_MOUSE<br>[Source:SWISSPROT;Acc:Q61881]  | Within Intron 13                                 |   |   |
| mmu-miR-93   | 1                | 5                    | ENSMUSG00000029730                     | DNA REPLICATION LICENSING FACTOR MCM7 (CDC47 HOMOLOG). MCM7_MOUSE [Source:SWISSPROT;Acc:Q61881]        | Within Intron 13                                 |   |   |

| mmu-miR-106b  | 2 | 5  | ENSMUSG00000029730 | DNA REPLICATION LICENSING FACTOR<br>MCM7 (CDC47 HOMOLOG). MCM7_MOUSE<br>[Source:SWISSPROT;Acc:Q61881]   | Within Intron 13 |   |  |
|---------------|---|----|--------------------|---|------------------|---|--|
|               |   |    |                    |   |                  |   |  |
| hsa-miR-26a-1 | 3 | 3  | ENSG00000144677    | NUCLEAR LIM INTERACTOR-INTERACTING<br>FACTOR 1 (NLI-INTERACTING FACTOR 1)<br>(NIF-LIKE PROTEIN) (YA22 PROTEIN)<br>(HYA22). NIF1_HUMAN (C3orf8)<br>[Source:SWISSPROT;Acc:O15194] | Within Intron 6  |   |  |
| mmu-miR-26a-1 | 3 | 9  | ENSMUSG00000038995 | NUCLEAR LIM INTERACTOR-INTERACTING<br>FACTOR 1 (NLI-INTERACTING FACTOR 1)<br>(NIF-LIKE PROTEIN). NIF1_MOUSE<br>[Source:SWISSPROT;Acc:P58465]                                    | Within Intron 8  | Ubiquitously expressed  | Fernandes et al Identification of a protein that interacts with the golli-myelin basic protein and with nuclear LIM interactor in the nervous system. J Neurosci Res. 2004 Feb 15;75(4):461-71 |
| hsa-miR-26a-2 | 3 | 12 | ENSG00000175215    | NUCLEAR LIM INTERACTOR-INTERACTING<br>FACTOR 2 (NLI-INTERACTING FACTOR 2)<br>(PROTEIN OS-4). NIF2_HUMAN<br>[Source:SWISSPROT;Acc:O14595]  | Within Intron 5  | Ubiquitously expressed, with highest levels in pancreas and lowest in liver.  |  |
| mmu-miR-26a-2 | 3 | 10 | ENSMUSG00000040540 | NUCLEAR LIM INTERACTOR-INTERACTING<br>FACTOR 2; NLI-INTERACTING FACTOR 2.<br>[Source:RefSeq;Acc:NM_146012]  | Within Intron 4  | Ubiquitously expressed  | Affy U74A: 95161_at  |
|               |   |    |                    |   |                  |   |  |
| hsa-miR-26b   | 3 | 1  | ENSG00000144579    | NUCLEAR LIM INTERACTOR-INTERACTING<br>FACTOR 3 (NLI-INTERACTING FACTOR 3)<br>(NLI-IF). NIF3_HUMAN<br>[Source:SWISSPROT;Acc:Q9GZU7]  | Within Intron 4  | Ubiquitously expressed, with highest expression in spleen, lung and placenta. |  |
| mmu-miR-26b   | 3 | 1  | ENSMUSG00000026176 | NUCLEAR LIM INTERACTOR-INTERACTING<br>FACTOR 3 (NLI-INTERACTING FACTOR 3)<br>(GOLLI-INTERACTING PROTEIN) (GIP).<br>NIF3_MOUSE<br>[Source:SWISSPROT;Acc:P58466]                  | Within Intron 4  |   |  |

| hsa-miR-28                   | 1 | 3      | ENSG00000145012                        | LIM DOMAIN CONTAINING PREFERRED<br>TRANSLOCATION PARTNER IN LIPOMA;<br>LIM DOMAIN-CONTAINING PREFERRED<br>TRANSLOCATION PARTNER IN LIPOMA;<br>LIPOMA-PREFERRED-PARTNER GENE. LPP<br>[Source:RefSeq;Acc:NM_005578]  | Within Intron 5                 | High expression in uterus, prostate, ovary. Highest expression in heart, colon and testes. Moderate expression in colon, small intestine, ovary, prostate. Not expressed in brain and peripheral blood leukocytes | Gorenne I, et al., LPP,<br>a LIM protein highly<br>expressed in smooth<br>muscle. Am J Physiol<br>Cell Physiol. 2003 |
|------------------------------|---|--------|--|--|---------------------------------|---|--|
| mmu-miR-28                   | 1 | 16     | ENSMUSG00000033306                     | LIM DOMAIN CONTAINING PREFERRED<br>TRANSLOCATION PARTNER IN LIPOMA.<br>[Source:RefSeq;Acc:NM_178665]   | Within Intron 7                 |   |  |
|                              |   |        |  |  |                                 |   |  |
| hsa-miR-30c-1                | 6 | 1      | ENSG00000066136                        | NUCLEAR TRANSCRIPTION FACTOR Y SUBUNIT GAMMA (NF-Y PROTEIN CHAIN C) (NUCLEAR FACTOR YC) (NF-YC) (CCAAT-BINDING TRANSCRIPTION FACTOR SUBUNIT C) (CBF-C) (TRANSACTIVATOR HSM-1/2). NFYC [Source:SWISSPROT;Acc:Q13952]  | Within Intron 5                 | Widely Expressed  | Affy U95A: 40466_at  |
| hsa-miR-30e                  | 6 | 1      | ENSG00000066136                        | NUCLEAR TRANSCRIPTION FACTOR Y SUBUNIT GAMMA (NF-Y PROTEIN CHAIN C) (NUCLEAR FACTOR YC) (NF-YC) (CCAAT-BINDING TRANSCRIPTION FACTOR SUBUNIT C) (CBF-C) (TRANSACTIVATOR HSM-1/2). NFYC [Source:SWISSPROT;Acc:Q13952]  | Within Intron 5                 | Widely Expressed  | Affy U95A: 40466 at  |
| mmu-miR-30c-1<br>mmu-miR-30e | 6 | 4      | ENSMUSG00000032897  ENSMUSG00000032897 | NUCLEAR TRANSCRIPTION FACTOR Y SUBUNIT GAMMA (NF-Y PROTEIN CHAIN C) (NUCLEAR FACTOR YC) (NF-YC) (CCAAT-BINDING TRANSCRIPTION FACTOR SUBUNIT C) (CBF-C). Nfyc [Source:SWISSPROT;Acc:P70353]  NUCLEAR TRANSCRIPTION FACTOR Y SUBUNIT GAMMA (NF-Y PROTEIN CHAIN C) (NUCLEAR FACTOR YC) (NF-YC) (CCAAT-BINDING TRANSCRIPTION FACTOR SUBUNIT C) (CBF-C). Nfyc [Source:SWISSPROT;Acc:P70353] | Within Intron 5 Within Intron 5 |   |  |
| mind fillix 500              | U | 7      | LI451105000000052097                   | [Jource:JW1JJ: ROT/Acc.1 70JJJ]  | Within Indion 3                 |   |  |
|                              |   |        |  |  |                                 |   |  |
| h miD 22                     |   | 0      | OTTHUMG00000020469/E                   |  | Million Tolling 4.4             |   |  |
| hsa-miR-32                   | 1 | 9<br>4 | NSG00000106771<br>ENSMUSG00000038800   | Novel Protein (C9orf5)   | Within Intron 14                |   |  |
| mmu-miR-32                   | 1 | 4      | EN21402000000038800                    | Novel Protein  | Within Intron 4                 |   |  |

| ısa-miR-33         | 1           | 22       | OTTHUMG00000030492/E<br>NSG00000100152            | STEROL REGULATORY ELEMENT BINDING PROTEIN-2 (SREBP-2) (STEROL REGULATORY ELEMENT-BINDING TRANSCRIPTION FACTOR 2). SREBF2 [Source:SWISSPROT;Acc:Q12772] | Within Intron 15 | Widely expressed. Subject to feedback transcription control by sterols. | Sato R, Inoue J,<br>Kawabe Y, Kodama T,<br>Takano T, Maeda M.<br>Sterol-dependent<br>transcriptional<br>regulation of sterol<br>regulatory element-<br>binding protein-2. J<br>Biol Chem. 1996 Oct<br>25;271(43):26461-4 |
|--------------------|-------------|----------|---|--|------------------|---|--|
| nmu-miR-33         | 1           | 15       | ENSMUSG00000022463                                | STEROL REGULATORY ELEMENT BINDING FACTOR 2. Srebf2 [Source:SPTREMBL;Acc:Q8BPL7]  | Within Intron 16 |   |  |
|                    |             |          |   |  |                  |   |  |
| ısa-miR-95         | 1           | 4        | ENSG00000163995                                   | ACTIN BINDING LIM PROTEIN 2. ABLIM2 [Source:RefSeq;Acc:NM_032432]  | Within Intron 4  |   |  |
| nmu-miR-95 does no | t appear co | onserved |   |  |                  |   |  |
|                    |             |          |   | Nevel Ducksin (C210DE24) (EDACMENT)  |                  |   |  |
| isa-miR-99a        | 2           | 21       | ENSG00000174496                                   | Novel Protein (C210RF34) (FRAGMENT).<br>[Source:SPTREMBL;Acc:Q8TDA7]   | Within Intron 6  |   |  |
| sa-let-7c-1        | 2           | 21       | ENSG00000174496                                   | Novel Protein (C210RF34) (FRAGMENT).<br>[Source:SPTREMBL;Acc:Q8TDA7]   | Within Intron 6  |   |  |
| ısa-miR-125b-2     | 1           | 21       | ENSG00000174496                                   | Novel Protein (C210RF34) (FRAGMENT).<br>[Source:SPTREMBL;Acc:Q8TDA7]   | Within Intron 6  |   |  |
| nmu-miR-99a        | 1           | 16       | ENSMUSESTG0000002023<br>2<br>ENSMUSESTG0000002023 | Novel Protein  | Within Intron 2  |   |  |
| nmu-let-7c-1       | 2           | 16       | 2<br>ENSMUSESTG0000002023                         | Novel Protein  | Within Intron 2  |   |  |
| nmu-miR-125b-2     | 2           | 16       | 2   | Novel Protein  | Within Intron 2  |   |  |
|                    | 1           | 16       | A330104E14 RIKEN                                  | RIKEN mlncRNA  | miRNA precursor  | maps close to this mlncRNA  |  |
| nmu-miR-125b-2     |             |          |   |  |                  |   |  |
| nmu-miR-125b-2     |             |          |   |  |                  |   |  |
| nmu-miR-125b-2     | 2           | 9        | OTTHUMG00000019474/E<br>NSG00000120158            | RNA 3'-TERMINAL PHOSPHATE CYCLASE-<br>LIKE PROTEIN (HSPC338). RCL1_HUMAN<br>[Source:SWISSPROT;Acc:Q9Y2P8]  | Within Intron 8  |   |  |

|  |                 |                  |  | PANTOTHENATE KINASE 3 (EC 2.7.1.33) (PANTOTHENIC ACID KINASE 3)  |                 |  |                 |
|--|-----------------|------------------|--|--|-----------------|--|-----------------|
| hsa-miR-103-1                                    | 2               | 5                | ENSG00000120137                        | (HPANK3).<br>[Source:SWISSPROT;Acc:Q9H999]   | Within Intron 4 | Highly expressed in the liver.   | SWISSPROT       |
| mmu-miR-103-1                                    | 2               | 11               | ENSMUSG00000018846                     | PANTOTHENATE KINASE 3 (EC 2.7.1.33) (PANTOTHENIC ACID KINASE 3) (MPANK3). PNK3_MOUSE [Source:SWISSPROT;Acc:Q8R2W9]   | Within Intron 5 | iivei.   | 3W13311(01      |
|  |                 |                  |  |  |                 |  |                 |
| hsa-miR-103-2                                    | 2               | 20               | OTTHUMG00000031768/E<br>NSG00000125779 | [Source: ŚWISSPROT; Acc: Q9BZ23]   | Within Intron 5 | Ubiquitous   | SWISSPROT       |
| mmu-miR-103-2                                    | 2               | 2                | ENSMUSG00000037514                     | PANTOTHENATE KINASE 2.<br>[Source:RefSeq;Acc:NM_153501]  | Within Intron 5 |  |                 |
|  |                 |                  |  |  |                 |  |                 |
| hsa-miR-105-1                                    | 2               | X                | ENSG00000011677                        | GAMMA-AMINOBUTYRIC-ACID RECEPTOR ALPHA-3 SUBUNIT PRECURSOR (GABA(A) RECEPTOR). GABRA3 [Source:SWISSPROT;Acc:P34903]  GAMMA-AMINOBUTYRIC-ACID RECEPTOR ALPHA-3 SUBUNIT PRECURSOR (GABA(A) RECEPTOR). GABRA3 | Within Intron 1 | Expressed in many tissues. Highest levels of expression in adult heart and placenta.  Expressed in many tissues. | SWISSPROT       |
| hsa-miR-105-2                                    | 2               | X                | ENSG00000011677                        | [Source:SWISSPROT;Acc:P34903]  | Within Intron 1 | Highest levels of expression in adult heart and placenta.  | SWISSPROT       |
| mmu-miR-105-1<br>predicted<br>mmu-miR-105-2 does | 1<br>s not appe | X<br>ar conserve | ENSMUSG00000031343<br>d                | GAMMA-AMINOBUTYRIC-ACID RECEPTOR<br>ALPHA-3 SUBUNIT PRECURSOR (GABA(A)<br>RECEPTOR). Gabra3 [Source: SWISSPROT<br>(P26049)]  | Within Intron 1 |  |                 |
|  |                 |                  |  | DANITOTUENIATE MINACE 1 (EC. 2.7.1.22)   |                 |  |                 |
| hsa-miR-107                                      | 1               | 10               | OTTHUMG00000018718/E<br>NSG00000152782 | PANTOTHENATE KINASE 1 (EC 2.7.1.33) (PANTOTHENIC ACID KINASE 1) (HPANK1) (HPANK). [Source:SWISSPROT;Acc:Q8TE04]  | Within Intron 5 | Expressed in liver and kidney.   | SWISSPROT       |
| mmu-miR-107                                      | 1               | 16               | ENSMUSG00000033610                     | PANTOTHENATE KINASE 1 (EC 2.7.1.33)<br>(PANTOTHENIC ACID KINASE 1)<br>(MPANK1) (MPANK). PANK1_MOUSE<br>[Source:SWISSPROT;Acc:Q8K4K6]   | Within Intron 5 |  |                 |
|  |                 |                  |  |  |                 |  |                 |
| hsa-miR-124a-1                                   | 3               | 8                | 8_9800285/hanura<br>AceView            | Novel Protein  | Within Intron 1 | Expressed at high levels   | Aceview/Acembly |
| mmu-miR-124a-1                                   | 3               | 14               |  |  | undefined       |  |                 |
| 111111 12 14 1                                   | 9               |                  |  |  |                 |  |                 |

| hsa-miR-124a-2              | 3 | 8 | 8_65335667/puly Aceview                 | Novel Protein   | Within Intron 1                 |  |  |
|-----------------------------|---|---|---|---|---------------------------------|--|--|
| mmu-miR-124a-2              | 3 | 3 | ENSMUSG00000049348                      | Novel Protein   | Within Intron 2                 |  |  |
|                             |   |   |   |   |                                 |  |  |
|                             |   |   |   | EGF-LIKE-DOMAIN, MULTIPLE 7; NEU1   |                                 |  |  |
| hsa-miR-126                 | 1 | 9 | OTTHUMG00000020938/E<br>NSG00000172889  | PROTEIN. (bA251M1.2) [Source:RefSeq;Acc:NM_016215]  | Within Intron 6                 |  |  |
|                             |   |   | OTTHUMG00000020938/E                    | EGF-LIKE-DOMAIN, MULTIPLE 7; NEU1   |                                 |  |  |
| hsa-miR-126*                | 1 | 9 | NSG00000172889                          | [Source:RefSeq;Acc:NM_016215]   | Within Intron 6                 |  |  |
| hsa-miR-126                 | 1 | 9 | OTTHUMG00000020938                      | Vega mlncRNA (Isoform bA251M1.2-006)  | Within Intron 5                 |  |  |
| h :D 126*                   |   | 0 |   |   |                                 |  |  |
| hsa-miR-126*                | 1 | 9 | OTTHUMG00000020938                      | Vega mlncRNA (Isoform bA251M1.2-006)  | Within Intron 5                 |  |  |
| mmu-miR-126<br>mmu-miR-126* | 1 | 2 | ENSMUSG00000026921  ENSMUSG00000026921  | EGF-LIKE DOMAIN 7; NEU1 PROTEIN. NOTCH4-LIKE PROTEIN (VASCULAR ENDOTHELIAL ZINC FINGER 1) [Source:RefSeq;Acc:NM_178444] EGF-LIKE DOMAIN 7; NEU1 PROTEIN. NOTCH4-LIKE PROTEIN (VASCULAR ENDOTHELIAL ZINC FINGER 1) [Source:RefSeq;Acc:NM_178444] | Within Intron 7 Within Intron 7 | Expressed specifically in endothelial cells of the developing mouse embryo. In adults expressed in early endothelial progenitors | Soncin F, Mattot V,<br>Lionneton F, Spruyt N,<br>Lepretre F, Begue A,<br>Stehelin D. VE-statin,<br>an endothelial<br>repressor of smooth<br>muscle cell migration.<br>EMBO J. 2003 Nov<br>3;22(21):5700-11 |
| mind mix 120                | _ | 2 | ENSI-10300000020721                     | [Source:Nerseq,Acc:Nin_170444]  | Within Indion 7                 | Sume   | Same   |
|                             |   |   |   |   |                                 |  |  |
|                             |   |   |   | R3H DOMAIN PROTEIN 1. R3HDM   |                                 | Widely expressed with highest expression in brain.   |  |
| hsa-miR-128a                | 2 | 2 | ENSG00000048991<br>ENSMUSESTG0000002314 | [Source:SWISSPROT;Acc:Q15032]   | Within Intron 18                | Enriched in fetal brain.   | Affy U95A: 36610_at  |
| mmu-miR-128a                | 2 | 1 | 4                                       | Novel Protein   | Within Intron 5                 |  |  |
|                             |   |   |   |   |                                 |  |  |
| hsa-miR-128b                | 2 | 3 | ENSG00000076062                         | CAMP-REGULATED PHOSPHOPROTEIN 21 (ARPP-21) (SwissProt: AP21 HUMAN)  | Within Intron 11                |  |  |
| Till TEOD                   |   |   |   | (/ (O MISSI FOCI / 11 11 O MI/(14)  | c.iiii Iiici Oii II             |  |  |

| mmu-miR-128b   | 2 | 9  | ENSMUSG00000032503        | CAMP-REGULATED PHOSPHOPROTEIN 21 (ARPP-21). AP21_MOUSE [Source:SWISSPROT;Acc:Q9DCB4]  | Within Intron 17   | Neuron-specific expression.<br>Enriched in specific brain<br>areas which are known to<br>receive a rich dopaminergic<br>innervation | regulation of phosphorylation in rat   |
|----------------|---|----|---------------------------|---|--------------------|---|--|
|                |   |    |                           |   |                    |   |  |
| hsa-miR-129-1  | 2 | 7  | CALU/7_127933340 NCBI     |   | Within Intron 2    | Highly expressed in heart<br>and placenta. Moderately<br>expressed in most other<br>organs. Low expression in<br>brain and liver.   | Yabe D, Taniwaki M,<br>Nakamura T, Kanazawa<br>N, Tashiro K, Honjo T.<br>Human calumenin gene<br>(CALU): cDNA isolation<br>and chromosomal<br>mapping to 7q32.<br>Genomics. 1998 Apr<br>15;49(2):331-3 |
| mmu-miR-129-1  | 2 | 6  | Calu NCBI                 | CALUMENIN 1 [Source:SWISSPROT; Acc:CALU]  | Within Intron 2    |   |  |
| mind min 125 1 | 2 | O  | Cala Nebi                 | reciencoj   | Within Introll 2   |   |  |
|                |   |    |                           |   |                    |   |  |
| hsa-miR-130b   | 2 | 22 |                           |   | undefined          |   |  |
| mmu-miR-130b   | 2 | 16 | ENSMUSESTG0000001615<br>2 | Novel Protein   | Within Intron 1    | High expression in testes   | Afy U74A: 107889_at  |
| 15 4001        |   |    | ENSMUSESTG0000001615      |   | Within Intron 2 on |   |  |
| mmu-miR-130b   | 2 | 16 | 8                         | Possible mlncRNA  | opposite strand    |   |  |
| hsa-miR-139    | 1 | 11 | ENSG00000186642           | CGMP-DEPENDENT 3',5'-CYCLIC PHOSPHODIESTERASE (EC 3.1.4.17) (CYCLIC GMP STIMULATED PHOSPHODIESTERASE) (CGS-PDE) (CGSPDE). PDE2A [Source:SWISSPROT;Acc:000408] CGMP-DEPENDENT 3',5'-CYCLIC PHOSPHODIESTERASE (EC 3.1.4.17) (CYCLIC GMP STIMULATED PHOSPHODIESTERASE) (CGS-PDE) | Within Intron 2    | Expressed in brain and to a lesser extent in heart, placenta, lung, skeletal muscle, kidney and pancreas.                           | SWISSPROT  |
|                |   |    |                           | (CGSPDE) (FRAGMENT). CN2A_MOUSE   |                    |   |  |

| hsa-miR-140  | 1 | 16 | ENSG00000088481                | NEDD-4-LIKE UBIQUITIN-PROTEIN LIGASE WWP2 (EC 6.3.2) (WW DOMAIN- CONTAINING PROTEIN 2) (ATROPIN-1 INTERACTING PROTEIN 2) (AIP2). WWP2_HUMAN [Source:SWISSPROT;Acc:O00308] | Within Intron 15 | Expressed in heart,<br>throughout the brain,<br>placenta, lung, liver,<br>muscle, kidney and<br>pancreas  | SWISSPROT  |
|--------------|---|----|--------------------------------|---|------------------|---|--|
| mmu-miR-140  | 1 | 8  | ENSMUSG00000031930             | NEDD-4-LIKE UBIQUITIN-PROTEIN<br>LIGASE WWP2 (EC 6.3.2) (WW DOMAIN-<br>CONTAINING PROTEIN 2). WWP2_MOUSE<br>[Source:SWISSPROT;Acc:Q9DBH0]                                 | Within Intron 16 |   |  |
| hsa-miR-148b | 2 | 12 | ENSG00000111481                | COATOMER ZETA-1 SUBUNIT (ZETA-1<br>COAT PROTEIN) (ZETA-1 COP) (CGI-120)<br>(HSPC181). COPZ1 [Source: SWISSPROT<br>(Q9Y3C3)]   | Within Intron 1  | Ubiquitous  | SWISSPROT  |
| mmu-miR-148b | 2 | 15 | ENSMUSG00000035994<br>MBuild30 | COATOMER ZETA-1 SUBUNIT (ZETA-1 COAT PROTEIN) (ZETA-1 COP) (CGI-120) (HSPC181). COZ1_MOUSE [Source: SWISSPROT (Q9Y3C3)]   | Within Intron 1  | Ubiquitous  | Futatsumori M, Kasai<br>K, Takatsu H, Shin HW,<br>Nakayama K.<br>Identification and<br>characterization of<br>novel isoforms of COP I<br>subunits. J Biochem<br>(Tokyo). 2000 Nov;<br>128(5):793-801                   |
|              |   |    |                                |   |                  |   |  |
| hsa-miR-149  | 1 | 2  | ENSG00000063660                | GLYPICAN-1 PRECURSOR. GPC1 [Source:SWISSPROT;Acc:P35052]  | Within Intron 1  |   |  |
| mmu-miR-149  | 1 | 1  | ENSMUSG00000034220             | GLYPICAN 1.<br>[Source:RefSeq;Acc:NM_016696]  | Within Intron 1  | High expression in the brain and skeletal system. In the brain, expressed by zones of neurons and neuroepithelia. Expression is also observed in skeletal and smooth muscle, epidermis, and in the developing limb and glomeruli of the kidney. Little or no expression is seen in the developing heart, lung, liver, dermis, or vascular endothelium | Litwack ED, Ivins JK,<br>Kumbasar A, Paine-<br>Saunders S, Stipp CS,<br>Lander AD. Expression<br>of the heparan sulfate<br>proteoglycan glypican-<br>1 in the developing<br>rodent. Dev Dyn. 1998<br>Jan;211(1):72-87. |

| hsa-miR-151                                 | 1 | 8  | ENSG00000169398    | FOCAL ADHESION KINASE 1 (EC<br>2.7.1.112) (FADK 1) (PP125FAK)<br>(PROTEIN- TYROSINE KINASE 2). FAK1<br>[Source: SWISSPROT (Q05397)]  | Within Intron 19 |   |  |
|---|---|----|--------------------|--|------------------|---|--|
| mmu-miR-151                                 | 1 | 15 | ENSMUSG00000022607 | FOCAL ADHESION KINASE 1 (EC 2.7.1.112) (FADK 1) (PP125FAK). FAK1_MOUSE [Source:SWISSPROT;Acc:P34152]   | Within Intron 25 | Expressed ubiquitously during early embryogenesis. Later in development highly expressed in the developing vasculature and blood vessels. | Polte TR, Naftilan AJ,<br>Hanks SK. Focal<br>adhesion kinase is<br>abundant in developing<br>blood vessels and<br>elevation of its<br>phosphotyrosine<br>content in vascular<br>smooth muscle cells is<br>a rapid response to<br>angiotensin II. J Cell<br>Biochem. 1994<br>May;55(1):106-19 |
|   |   |    |                    |  |                  |   |  |
| hsa-miR-152                                 | 1 | 17 | ENSG00000005243    | COATOMER ZETA-2 SUBUNIT (ZETA-2<br>COAT PROTEIN) (ZETA-2 COP). COPZ2<br>[Source:SWISSPROT;Acc:Q9P299]  | Within Intron 1  | Ubiquitous  | SWISSPROT  |
|   |   |    |                    | COATOMER ZETA-2 SUBUNIT (ZETA-2<br>COAT PROTEIN) (ZETA-2 COP).<br>COZ2_MOUSE   |                  |   |  |
| mmu-miR-152                                 | 1 | 11 | ENSMUSG00000018672 | [Source:SWISSPROT;Acc:Q9JHH9]  | Within Intron 1  | Ubiquitous  | SWISSPROT  |
|   |   |    |                    |  |                  |   |  |
| hsa-miR-153-1                               | 2 | 2  | ENSG00000054356    | PROTEIN-TYROSINE PHOSPHATASE-LIKE<br>N PRECURSOR (R-PTP-N) (PTP IA-2)<br>(ISLET CELL ANTIGEN 512) (ICA 512)<br>(ISLET CELL AUTOANTIGEN 3). PTPRN<br>[Source:SWISSPROT;Acc:Q16849]                      | Within Intron 19 | Highest levels in pancreas and brain  | Affy U95A: 917 q at  |
| mouse 153-1 does<br>not appear<br>conserved | 2 | 2  | ENSG00000034336    | [Source:SWISSPROT,Acc.Q16649]  | Within Introl 19 | and brain   | Ally 095A. 917_g_at  |
|   |   |    |                    |  |                  |   |  |
| hsa-miR-153-2                               | 2 | 7  | ENSG00000155093    | RECEPTOR-TYPE PROTEIN-TYROSINE<br>PHOSPHATASE N2 PRECURSOR (EC<br>3.1.3.48) (R-PTP-N2) (ISLET CELL<br>AUTOANTIGEN RELATED PROTEIN)<br>(ICAAR) (IAR) (PHOGRIN). PTPRN2<br>[Source:SWISSPROT;Acc:Q92932] | Within Intron 19 |   |  |

| mmu-miR-153<br>mmu-miR-153           | 1      | 12<br>12 | ENSMUSG00000054701<br>ENSMUSESTG0000001377<br>2  | RECEPTOR-TYPE PROTEIN-TYROSINE PHOSPHATASE N2 PRECURSOR (EC 3.1.3.48) (R-PTP-N2) (ISLET CELL AUTOANTIGEN RELATED PROTEIN) (ICAAR) (IAR) (PHOGRIN). PTPRN2 [Source: SWISSPROT (Q92932)]  Possible mlncRNA  | Within Intron 5<br>Within Intron 2 on<br>opposite strand | and spinal chord   | Wasmeier C, Hutton<br>JC. Molecular cloning<br>of phogrin, a protein-<br>tyrosine phosphatase<br>homologue localized to<br>insulin secretory<br>granule membranes. J<br>Biol Chem. 1996 Jul<br>26; 271 (30):18161-<br>70 |
|--------------------------------------|--------|----------|--|---|--|--|--|
|                                      |        |          |  |   |  |  |  |
|                                      |        |          |  |   |  |  | Tsuda M, Sasaoka Y,<br>Kiso M, Abe K,<br>Haraguchi S, Kobayashi<br>S, Saga Y. Conserved<br>role of nanos proteins<br>in germ cell  |
| hsa-miR-181c                         | 3      | 19       | ENSESTG00000027265/19<br>_13833877/skoyser<br>AceView                                    | NANOS HOMOLOG 3; NANOS3<br>[Source:SWISSPROT;Acc:NANOS3]  | Within Intron 1  | Expressed in germ cells  | development. Science.<br>2003 Aug<br>29;301(5637):1239-41  |
| hsa-miR-181c<br>mmu-miR-181c         | 3<br>3 | 19<br>8  | _13833877/skoyser  | NANOS HOMOLOG 3; NANOS3   | Within Intron 1 undefined                                | Expressed in germ cells  | development. Science. 2003 Aug   |
|                                      |        |          | _13833877/skoyser  | NANOS HOMOLOG 3; NANOS3   |  | Expressed in germ cells  | development. Science. 2003 Aug   |
|                                      |        |          | _13833877/skoyser<br>AceView   | NANOS HOMOLOG 3; NANOS3   |  | Expressed in germ cells  | development. Science. 2003 Aug   |
| mmu-miR-181c                         | 3      | 8        | _13833877/skoyser<br>AceView<br>OTTHUMG00000030615/E                                     | NANOS HOMOLOG 3; NANOS3 [Source:SWISSPROT;Acc:NANOS3]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10 (Em:AC006547.C22.3)   | undefined  | Expressed in germ cells  High levels in the trachea, liver, oesophagus, lung and velo-pharyngeal region. Also detected in the central nervous system | development. Science.<br>2003 Aug<br>29;301(5637):1239-41  |
| mmu-miR-181c                         | 1      | 22       | _13833877/skoyser<br>AceView<br>OTTHUMG00000030615/E<br>NSG00000183597                   | NANOS HOMOLOG 3; NANOS3 [Source:SWISSPROT;Acc:NANOS3]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10 (Em:AC006547.C22.3) [Source:SWISSPROT;Acc:NM_152906]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10_MOUSE [Source:SWISSPROT;Acc:P54797]  | undefined  Within Intron 1                               | High levels in the trachea, liver, oesophagus, lung and velo-pharyngeal region. Also detected in the central   | development. Science.<br>2003 Aug<br>29;301(5637):1239-41  |
| mmu-miR-181c                         | 1      | 22       | _13833877/skoyser<br>AceView<br>OTTHUMG00000030615/E<br>NSG00000183597                   | NANOS HOMOLOG 3; NANOS3 [Source:SWISSPROT;Acc:NANOS3]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10 (Em:AC006547.C22.3) [Source:SWISSPROT;Acc:NM_152906]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10_MOUSE  | undefined  Within Intron 1                               | High levels in the trachea, liver, oesophagus, lung and velo-pharyngeal region. Also detected in the central   | development. Science.<br>2003 Aug<br>29;301(5637):1239-41  |
| mmu-miR-181c hsa-miR-185 mmu-miR-185 | 1      | 22       | _13833877/skoyser<br>AceView  OTTHUMG00000030615/E<br>NSG00000183597  ENSMUSG00000013539 | NANOS HOMOLOG 3; NANOS3 [Source:SWISSPROT;Acc:NANOS3]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10 (Em:AC006547.C22.3) [Source:SWISSPROT;Acc:NM_152906]  SER/THR-RICH PROTEIN T10 IN DGCR REGION. T10_MOUSE [Source:SWISSPROT;Acc:P54797]  ZINC FINGER PROTEIN 265 (ZINC FINGER, SPLICING). ZNF265 | undefined  Within Intron 1  Within Intron 1              | High levels in the trachea, liver, oesophagus, lung and velo-pharyngeal region. Also detected in the central   | development. Science.<br>2003 Aug<br>29;301(5637):1239-41  |

| hsa-miR-188   | 1      | ×  | ENSG00000171365      | CHLORIDE CHANNEL PROTEIN 5 (CLC-5). CLCN5 [Source:SWISSPROT;Acc:P51795]   | Within Intron 3                     | Primarily expressed in Kidney. Expressed in the proximal tubule, thick ascending limb of Henle, and intercalated cells of the collecting duct. Moderately expressed in aortic vascular smooth muscle and endothelial cells, and at a slightly higher level in the coronary vascular smooth muscle. |  |
|---------------|--------|----|----------------------|---|-------------------------------------|--|--|
|               | -      |    |                      |   | 77161 21161.011.0                   |  | 5.1125. No.  |
| mmu-miR-188   | 1      | Х  | NSMUSESTG00000016074 | CHLORIDE CHANNEL PROTEIN 5 (CLC-5) CLC5_MOUSE   | Within Intron 2                     |  |  |
|               |        |    |                      |   |                                     |  |  |
| hsa-miR-190   | 1      | 15 | ENSG00000171914      | TALIN 2. TLN2 [Source:SWISSPROT;Acc:Q9Y4G6]   | Within Intron 51                    | Highly expressed in heart.<br>Moderate expression in<br>brain and testes. Weakly<br>expressed in lung, liver,<br>skeletal muscle   | Monkley SJ, Pritchard<br>CA, Critchley DR.<br>Analysis of the<br>mammalian talin2 gene<br>TLN2. Biochem<br>Biophys Res Commun.<br>2001 Sep<br>7;286(5):880-5 |
|               | _      |    |                      | TALIN 2. TLN2   |                                     |  | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,  |
| mmu-miR-190   | 1      | 9  | ENSMUSG00000035702   | [Source:RefSeq;Acc:NM_027458]   | Within Intron 27                    |  |  |
| h ::: D 101   | 4      | 2  | ENCECTCOOCOCC 10E    | Naval Protein   | Millio Tologo 4                     |  |  |
| hsa-miR-191   | 1      | 3  | ENSESTG00000006105   | Novel Protein ARIADNE-2 PROTEIN HOMOLOG (ARI-2)   | Within Intron 1                     |  |  |
| mmu-miR-191   | 1      | 9  | ENSMUSG00000032603   | (TRIAD1 PROTEIN) (UBCM4-INTERACTING PROTEIN 48). [Source:SWISSPROT;Acc:Q9Z1K6]  | Within Intron 6 on opposite strand  |  |  |
| hsa-miR-194-1 | 2      | 1  | ENSG00000067704      | mitochondrial isoleucine tRNA synthetase<br>[Source: RefSeq (NM_018060)]  | Within Intron 9 on opposite strand  |  |  |
| hsa-miR-215   | 1      | 1  | ENSG00000067704      | mitochondrial isoleucine tRNA synthetase [Source: RefSeq (NM_018060)]   | Within Intron 9 on opposite strand  |  |  |
| mmu-miR-194-1 | 2<br>1 | 1  | ENSMUSG00000026618   | SIMILAR TO MITOCHONDRIAL ISOLEUCINE TRNA SYNTHETASE [Source: SPTREMBL (Q8BIP3)] SIMILAR TO MITOCHONDRIAL ISOLEUCINE TRNA SYNTHETASE [Source: SPTREMBL (Q8BIP3)] | Within Intron 10 on opposite strand |  |  |
|               | -      | _  |                      | ( 4022. 0/1   | III IPPODICE CHANG                  |  |  |

| hsa-miR-196-1   | 4      | 17 | HOXB6/17_47186052<br>NCBI AceView            | HOMEOBOX PROTEIN HOX-B6 (HOX-2B) (HOX-2.2) (HU-2). [Source: SWISSPROT (P17509)]  | Within Intron 1  |                   |
|-----------------|--------|----|--|--|--|-------------------|
| mmu-miR-196-1   | 4      | 11 | NCDI ACEVIEW                                 | (F17309)]  | undefined  |                   |
|                 |        |    |  |  |  |                   |
| hsa-miR-196-2   | 4      | 12 | ENSESTG00000013465/<br>ENSG00000170338       | HOMEOBOX PROTEIN HOX-C6 (HOX-3C) (HHO.C8) (CP25). [Source: SWISSPROT (P09630)]   | Within Intron 1  |                   |
| mmu-miR-196-2   | 4      | 15 |  | (  | undefined  |                   |
| mind mix 150 Z  | •      | 13 |  |  | undermed   |                   |
|                 |        |    |  |  |  |                   |
| hsa-miR-199a-1  | 3      | 19 | ENSG00000079805                              | DYNAMIN 2 (EC 3.6.1.50). DNM2<br>[Source:SWISSPROT;Acc:P50570]   | Within Intron 14 on opposite strand Ubiquitously expressed SW                              | VISSPROT          |
| hsa-miR-199a*-1 | 2      | 19 | ENSG00000079805                              | DYNAMIN 2 (EC 3.6.1.50). DNM2<br>[Source:SWISSPROT;Acc:P50570]   | Within Intron 14 on opposite strand Ubiquitously expressed SW                              | VISSPROT          |
| mmu-miR-199a-1  | 3      | 9  | ENSMUSG00000032182                           | Novel Protein  | Within Intron 10   |                   |
| mmu-miR-199a*-1 | 2      | 9  | ENSMUSG00000032182                           | Novel Protein  | Within Intron 10   |                   |
| mmu-miR-199a-1  | 3      | 9  | ENSMUSG00000033335                           | DYNAMIN 2 (EC 3.6.1.50) (DYNAMIN UDNM). DYN2_MOUSE [Source:SWISSPROT;Acc:P39054]   | Within Intron 5 on opposite strand Ubiquitously expressed SW                               | VISSPROT          |
| mmu-miR-199a*-1 | 2      | 9  |  | DYNAMIN 2 (EC 3.6.1.50) (DYNAMIN UDNM). DYN2_MOUSE [Source:SWISSPROT;Acc:P39054]   | Within Intron 5 on opposite strand Ubiquitously expressed SW                               | VISSPROT          |
|                 |        |    |  |  |  |                   |
| hsa-miR-199b    | 3      | 9  | GOLGA2/9_126414324<br>NCBI AceView           | GOLGI AUTOANTIGEN, GOLGIN<br>SUBFAMILY A MEMBER 2 (GOLGI MATRIX<br>PROTEIN GM130) (GM130 AUTOANTIGEN)<br>(GOLGIN-95). GOLGA2 [Source:<br>SWISSPROT (Q08379)] | High expression in pituitary   | fy U95A: 35436_at |
| hsa-miR-199b    | 3      | 9  | ENSG00000106976                              | Dynamin-1 (SwissProt: DNM1)  | Within Intron 14 Expressed in many tissues. on opposite strand High expression in brain SW | VISSPROT          |
|                 |        |    |  | · ·  |  |                   |
| mmu-miR-199b    | 3      | 2  | ENSMUSG00000026825                           | DYNAMIN-1 (EC 3.6.1.50). DYN1_MOUSE [Source:SWISSPROT;Acc:P39053]  | Within Intron 14 Enriched expression in on opposite strand brain SW                        | VISSPROT          |
|                 |        |    |  |  |  |                   |
| hsa-miR-200a    | 3<br>3 | 1  |  |  | undefined  |                   |
| hsa-miR-200b    | 3      | 1  |  |  | undefined  |                   |
| mmu-miR-200a    | 3      | 4  | ENSMUSG00000029074/E<br>NSMUSESTG00000026542 | Novel Protein  | Within Intron 1  |                   |

| mmu-miR-200b           | 3            | 4       | ENSMUSG00000029074/E<br>NSMUSESTG00000026542 | Novel Protein  | Within Intron 1                    |   |                     |
|------------------------|--------------|---------|--|--|------------------------------------|---|---------------------|
|                        |              |         |  |  |                                    |   |                     |
|                        |              |         |  |  |                                    |   |                     |
| hsa-miR-204            | 1            | 9       | ENSG00000083067                              | LONG TRANSIENT RECEPTOR POTENTIAL<br>CHANNEL 3 (LTRPC3) (FRAGMENT).<br>TRPM3 [Source:SWISSPROT;Acc:Q9HCF6]                                 |                                    | Expressed primarily in kidney and, at lesser levels, in brain, testis, and spinal cord. |                     |
|                        |              |         |  | LONG TRANSIENT RECEPTOR POTENTIAL  |                                    |   | , , ,               |
| mmu-miR-204            | 1            | 19      | ENSMUSG00000024763                           | CHANNEL 3 (LTRPC3) MELASTATIN 3 (FRAGMENT).<br>[Source:SPTREMBL;Acc:Q8BKI1]  | Wihin Intron 6                     |   |                     |
| mmu-miR-204            | 1            | 19      | ENSMUSESTG0000000370                         | Possible mlncRNA   | Within Intron 1 on opposite strand |   |                     |
|                        |              |         |  |  |                                    |   |                     |
| hsa-miR-207 does not : | annear conse | rved hi | ut another putative miR hair                 | nin closeby  |                                    |   |                     |
| mmu-miR-207            | 1            | 4       | ENSMUSG00000028410                           | DNAJ HOMOLOG SUBFAMILY A MEMBER 1 (HEAT SHOCK 40 KDA PROTEIN 4) (DNAJ PROTEIN HOMOLOG 2) (HSJ-2). DJA1_MOUSE [Source:SWISSPROT;Acc:P54102] | Within Intron 1                    | Enriched in in the ovary<br>and brain. Moderately<br>expressed in many tissues          | Affy U95A: 97261_at |
|                        |              |         |  |  |                                    |   |                     |
| hsa-miR-208            | 1            | 14      | OTTHUMG00000028753/E<br>NSG00000166094       | MYOSIN HEAVY CHAIN, CARDIAC MUSCLE<br>ALPHA ISOFORM (MYHC-ALPHA). MYH6<br>[Source:SWISSPROT;Acc:P13533]                                    | Within Intron 28                   | Expressed in adult heart  | SWISSPROT           |
| mmu-miR-208            | 1            | 14      | ENSMUSG00000040752                           | MYOSIN HEAVY CHAIN, CARDIAC MUSCLE<br>ALPHA ISOFORM (MYHC-ALPHA).<br>MYH6_MOUSE<br>[Source:SWISSPROT;Acc:Q02566]                           | Within Intron 29                   | Expressed in adult heart  | SWISSPROT           |
|                        |              |         |  |  |                                    |   |                     |
| hsa-miR-210            | 1            | 11      | 11_558471/sneemar<br>Aceview                 | Novel Protein  | Within Intron 1                    | Expressed at high levels  | Aceview/Acembly     |
| mmu-miR-210 does no    |              |         |  |  |                                    |   | , ,                 |

| hsa-miR-211                    | 1   | 15            | ENSG00000134160               | TRANSIENT RECEPTOR POTENTIAL CATION CHANNEL, SUBFAMILY M, MEMBER 1; MELASTATIN 1. TRPM1 [Source:RefSeq;Acc:NM_002420]       | Within Intron 3                  |   |   |
|--------------------------------|-----|---------------|-------------------------------|---|----------------------------------|---|---|
| mmu-miR-211                    | 1   | 7             | ENSMUSG00000030523            | MELASTATIN 1 HOMOLOG.<br>[Source:SPTREMBL;Acc:Q8BJ11]   | Within Intron 6                  | rates of melanomas (high expression in poorly   | Duncan LM, Deeds J,<br>Hunter J, Shao J,<br>Holmgren LM, Woolf<br>EA, Tepper RI, Shyjan<br>AW. Down-regulation<br>of the novel gene<br>melastatin correlates<br>with potential for<br>melanoma metastasis.<br>Cancer Res. 1998 Apr<br>1;58(7):1515-20 |
| hsa-miR-218-1<br>mmu-miR-218-1 | 2 2 | <b>4</b><br>5 | ENSG00000145147<br>20563 NCBI | SLIT HOMOLOG 2 PROTEIN PRECURSOR (H-SLIT-2). SLIT2 [Source:SWISSPROT;Acc:094813] SLIT2. [Source: SPTREMBL (Q9R1B9)]         | Within Intron 15 Within Intron 5 | Fetal lung and kidney, and<br>adult spinal cord. Weak<br>expression in adult adrenal<br>gland, thyroid, trachea           | SWISSPROT   |
|                                |     |               |                               |   |                                  |   |   |
| hsa-miR-218-2                  | 2   | 5             | ENSG00000184347               | SLIT HOMOLOG 3; SLIT3 [Source:RefSeq;Acc:NM_003062]   | Within Intron 14                 |   |   |
| mmu-miR-218-2                  | 2   | 11            | 20564 NCBI                    | SLIT-3 [Source: SPTREMBL [Source:RefSeq;Acc:NM_003062]  | Within Intron                    |   |   |
|                                |     |               |                               |   |                                  |   |   |
| hsa-miR-224                    | 1   | ×             | ENSG00000102287               | GAMMA-AMINOBUTYRIC-ACID RECEPTOR<br>EPSILON SUBUNIT PRECURSOR (GABA(A)<br>RECEPTOR). GABRE<br>[Source:SWISSPROT;Acc:P78334] | Within Intron 6                  | Major isoform expressed at high levels in regions of the brain and heart, but is not detected in most other major tissues | rat.  |
| mmu-miR-224                    | 1   | X             | ENSMUSG00000031340            | GAMMA-AMINOBUTYRIC ACID (GABA-A) RECEPTOR, SUBUNIT EPSILON. GABRE [Source:RefSeq;Acc:NM_017369]                             | Within Intron 6                  |   |   |
|                                |     |               |                               |   |                                  |   |   |

| hsa-miR-301 | 1 | 17 | ENSG00000182628                                       | Novel Protein [Source:RefSeq;Acc:NM_182620]   | Within Intron 1                     |  |   |
|-------------|---|----|---|---|-------------------------------------|--|---|
| mmu-miR-301 | 1 | 11 | ENSMUSG00000020492                                    | Novel Protein [Source:RefSeq;Acc:NM_182620]   | Within Intron 1                     |  |   |
| mmu-miR-301 | 1 | 11 | E130019A22 RIKEN                                      | FANTOM2 mlncRNA   | miRNA precursor n                   | naps close to this mlncRNA   |   |
| hsa-miR-320 | 1 | 8  | ENSG00000168495/<br>POLR3D/8_22123470<br>NCBI AceView | DNA-DIRECTED RNA POLYMERASE III 47<br>KDA POLYPEPTIDE (EC 2.7.7.6) (RNA<br>POLYMERASE C SUBUNIT 4) (RPC4)<br>(RPC53) (BN51 PROTEIN). POLR3D<br>[Source: SWISSPROT (P05423)] | Within Intron 1                     | Expressed at high levels   | Aceview/Acembly   |
| mmu-miR-320 | 1 | 14 |   |   | undefined                           |  |   |
| hsa-miR-326 | 1 | 11 | ENSG00000137486<br>ENSMUSG00000018909/E               | BETA-ARRESTIN 1 (ARRESTIN, BETA 1). ARRB1 [Source: SWISSPROT (P49407)]  | Within Intron 1                     | Expressed in many tissues.<br>Highly expressed in brain<br>and peripheral blood<br>leukocytes. | Parruti G, Peracchia F,<br>Sallese M, Ambrosini G<br>Masini M, Rotilio D, De<br>Blasi A. Molecular<br>analysis of human beta<br>arrestin-1: cloning,<br>tissue distribution, and<br>regulation of<br>expression.<br>Identification of two<br>isoforms generated by<br>alternative splicing. J<br>Biol Chem. 1993 May<br>5;268(13):9753-61 |
| mmu-miR-326 | 1 | 7  | NSMUSESTG00000016049<br>MBuild30                      | ARRESTIN, BETA 1 ISOFORM B. Arrb1 [Source: RefSeq (NM_178220)]  | Within Intron 1                     |  |   |
|             |   |    |   | ENGULFMENT AND CELL MOTILITY  |                                     |  |   |
| hsa-miR-328 | 1 | 16 | ENSG00000102890                                       | PROTEIN 3. ELMO3 [Source: SWISSPROT (Q96BJ8)]   | Within Intron 12 on opposite strand |  |   |
|             | _ |    |   | ENGULFMENT AND CELL MOTILITY PROTEIN 3. ELM3_MOUSE  | Within Intron 13                    |  |   |
| mmu-miR-328 | 1 | 8  | ENSMUSG00000014791                                    | [Source:SWISSPROT;Acc:Q8BYZ7]   | on opposite strand                  |  |   |
| hsa-miR-335 | 1 | 7  | ENSG00000106484                                       | MESODERM SPECIFIC TRANSCRIPT<br>ISOFORM A; PATERNALLY EXPRESSED<br>GENE 1. MEST [Source: RefSeq<br>(NM_002402)]   | Within Intron 2                     |  |   |
|             |   |    |   |   | Within Intron 1 on                  |  |   |

| mmu-miR-335 | 1 | 6  | ENSMUSG00000051855 | MESODERM SPECIFIC TRANSCRIPT ISOFORM A; PATERNALLY EXPRESSED GENE 1. Mest [Source: RefSeq (NM_008590)]                       | Within Intron 1                    | Expressed in embryonic and extra-embryonic mesoderm during gastrulation. Subsequently expressed in mesodermal derivates and areas of the brain. Only the paternally inherited allele is expressed. | Kaneko-Ishino T, Kuroiwa Y, Miyoshi N, Kohda T, Suzuki R, Yokoyama M, Viville S, Barton SC, Ishino F, Surani MA. Peg1/Mest imprinted gene on chromosome 6 identified by cDNA subtraction hybridization. Nat Genet. 1995 Sep;11(1):52-9 |
|-------------|---|----|--------------------|--|------------------------------------|--|--|
|             |   |    |                    |  |                                    |  |  |
|             |   |    |                    | APOPTOSIS-ASSOCIATED TYROSINE  |                                    |  |  |
| hsa-miR-338 | 1 | 17 | ENSG00000181409    | KINASE. AATK [Source:RefSeq;Acc:NM_007377]   | Within Intron 5                    |  |  |
| mmu-miR-338 | 1 | 11 | ENSMUSG00000025375 | APOPTOSIS-ASSOCIATED TYROSINE<br>KINASE. Aatk<br>[Source:RefSeq;Acc:NM_007377]   | Within Intron 7                    | Expressed primarily in brain with much lower expression in lung and muscle.  | Tomomura M, Fernandez-Gonzales A, Yano R, Yuzaki M. Characterization of the apoptosis-associated tyrosine kinase (AATYK) expressed in the CNS. Oncogene. 2001 Mar 1;20(9):1022-32  |
|             |   |    |                    |  |                                    |  |  |
|             |   |    |                    |  |                                    |  |  |
| hsa-miR-339 | 1 | 7  | OTTHUMG00000023642 | Novel Protein (MGC11257)   | Within Intron 2 on opposite strand |  |  |
| mmu-miR-339 | 1 | 5  | ENSMUSG00000029533 | ARSENITE INDUCIBLE RNA ASSOCIATED PROTEIN. (AIRAP) AA407930 [Source:RefSeq;Acc:NM_133349] CHEMOKINE RECEPTOR-LIKE 2. (Gpr30) | Within Intron 1 Within Intron 1 on | Expression induced by<br>Arsenite in cells   | Sok J, Calfon M, Lu J,<br>Lichtlen P, Clark SG,<br>Ron D. Arsenite-<br>inducible RNA-<br>associated protein<br>(AIRAP) protects cells<br>from arsenite toxicity.<br>Cell Stress Chaperones.<br>2001 Jan;6(1):6-15                      |
| mmu-miR-339 | 1 | 5  | ENSMUSG00000036756 | [Source:SPTREMBL;Acc:Q8BMP4]   | opposite strand                    |  |  |
| hsa-miR-340 | 1 | 5  | ENSG00000113269    | RING FINGER PROTEIN 130; GOLIATH<br>PROTEIN; G1-RELATED ZINC FINGER<br>PROTEIN. RNF130 [Source: RefSeq<br>(NM_018434)]       | Within Intron 2                    |  |  |

| ### Baker SJ, Reddy PF, Cloning of murine CIRP, a novel gene per cell provided in the Communication of the Circle  |      |           |   |    |                    |   |                 |   |  |
|--|------|-----------|---|----|--------------------|---|-----------------|---|--|
| hsa-miR-342 1 14 ANGO0000089465 SWISSPROT (Q9UI08)] Within Intron 3  Ohta S, Mineta T, Kimoto M, Tabuchi K. Differential display cloning of a novel rat cDNA (RNB6) that shows high expression in the neonatal brain revealed a member of personal process. Photogram (PNA/SE)-LIKE PROTEIN). EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN (PNA/SE)-LIKE PROTEIN). EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN (PNA/SE)-LIKE PROTEIN). EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN. EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN. EVALUATED PHOSPHORPOTEIN. EVALUATED PHOSPHORPOTEIN | mm   | u-miR-340 | 1 | 11 | ENSMUSG00000020376 | ZINC FINGER PROTEIN. Rnf130                                       | Within Intron 2 | Lesser expression in lung, spleen, brain, heart,      | Cloning of murine<br>G1RP, a novel gene<br>related to Drosophila<br>melanogaster g1.<br>Gene. 2000 May   |
| hsa-miR-342 1 14 ANGO0000089465 SWISSPROT (Q9UI08)] Within Intron 3  Ohta S, Mineta T, Kimoto M, Tabuchi K. Differential display cloning of a novel rat cDNA (RNB6) that shows high expression in the neonatal brain revealed a member of personal process. Photogram (PNA/SE)-LIKE PROTEIN). EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN (PNA/SE)-LIKE PROTEIN). EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN (PNA/SE)-LIKE PROTEIN). EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN. EVALUATED PHOSPHORPOTEIN-LIKE PROTEIN. EVALUATED PHOSPHORPOTEIN. EVALUATED PHOSPHORPOTEIN |      |           |   |    |                    |   |                 |   |  |
| ENA/VASODILATOR STIMULATED PHOSPHOPROTEIN-LIKE PROTEIN. ENA/VASODILATOR STIMULATED PHOSPHOPROTEIN. ENA/VASODILATOR ENA/VASODILATOR STIMULATED PHOSPHOPROTEIN. ENA/VASODILATOR ENA/VASO | hsa- | ·miR-342  | 1 | 14 |                    | PHOSPHOPROTEIN-LIKE PROTEIN (ENA/VASP-LIKE PROTEIN). EVL [Source: | Within Intron 3 |   |  |
| hsa-miR-346 1 10 NSG00000182771 SPTREMBL (Q8IXT3)] Within Intron 2  GLUTAMATE RECEPTOR, IONOTROPIC, DELTA 1. GRID1 [Source: RefSeq (NM_008166)] Within Intron 1 Slight expression in brain, placenta, and thyroid. Slight expression in heart, ovary, large intestine Affy U74A: 94619_at  KARP-1-BINDING PROTEIN. [Source: RefSeq (NM_014812)] Within Intron 6  Do E, et al., Molecular cloning and characterization of rKAB1, which interacts with KARP-1, localizes in the nucleus and protects cells against oxidative death. Mol KARP-1-BINDING PROTEIN. [Source: Specifically expressed in Cell Biochem. 2003  | mm   | u-miR-342 | 1 | 12 | ENSMUSG00000021262 | PHOSPHOPROTEIN-LIKE PROTEIN (ENA/VASP-LIKE PROTEIN). EVL_MOUSE    | Within Intron 3 | in adult brain, thymus,                               | Kimoto M, Tabuchi K. Differential display cloning of a novel rat cDNA (RNB6) that shows high expression in the neonatal brain revealed a member of Ena/VASP family. Biochem Biophys Res Commun. 1997 Aug |
| hsa-miR-346 1 10 NSG00000182771 SPTREMBL (Q8IXT3)] Within Intron 2  GLUTAMATE RECEPTOR, IONOTROPIC, DELTA 1. GRID1 [Source: RefSeq (NM_008166)] Within Intron 1 Slight expression in brain, placenta, and thyroid. Slight expression in heart, ovary, large intestine Affy U74A: 94619_at  KARP-1-BINDING PROTEIN. [Source: RefSeq (NM_014812)] Within Intron 6  Do E, et al., Molecular cloning and characterization of rKAB1, which interacts with KARP-1, localizes in the nucleus and protects cells against oxidative death. Mol KARP-1-BINDING PROTEIN. [Source: Specifically expressed in Cell Biochem. 2003  |      |           |   |    |                    |   |                 |   |  |
| mmu-miR-346 1 14 Grid1 NCBI GLUTAMATE RECEPTOR, IONOTROPIC, DELTA 1. GRID1 [Source: RefSeq (NM_08166)] Within Intron 1 ovary, large intestine Affy U74A: 94619_at  KARP-1-BINDING PROTEIN. [Source: RefSeq (NM_014812)] Within Intron 6  Do E, et al Molecular cloning and characterization of rKAB1, which interacts with KARP-1, localizes in the nucleus and protects cells against oxidative death. Mol KARP-1-BINDING PROTEIN. [Source: Specifically expressed in Cell Biochem. 2003  | hsa- | -miR-346  | 1 | 10 |                    | IONOTROPIC, DELTA 1. GRID1 [Source:                               | Within Intron 2 |   |  |
| hsa-miR-350 1 1 ENSG00000143702 RefSeq (NM_014812)] Within Intron 6  Do E, et al Molecular cloning and characterization of rKAB1, which interacts with KARP-1, localizes in the nucleus and protects cells against oxidative death. Mol KARP-1-BINDING PROTEIN. [Source: Specifically expressed in Cell Biochem. 2003  | mm   | u-miR-346 | 1 | 14 | Grid1 NCBI         | DELTA 1. GRID1 [Source: RefSeq                                    | Within Intron 1 | placenta, and thyroid.<br>Slight expression in heart, |  |
| hsa-miR-350 1 1 ENSG00000143702 RefSeq (NM_014812)] Within Intron 6  Do E, et al Molecular cloning and characterization of rKAB1, which interacts with KARP-1, localizes in the nucleus and protects cells against oxidative death. Mol KARP-1-BINDING PROTEIN. [Source: Specifically expressed in Cell Biochem. 2003  |      |           |   |    |                    |   |                 |   |  |
| cloning and characterization of rKAB1, which interacts with KARP-1, localizes in the nucleus and protects cells against oxidative death. Mol  KARP-1-BINDING PROTEIN. [Source: Specifically expressed in Cell Biochem. 2003  | hsa- | -miR-350  | 1 | 1  | ENSG00000143702    |   | Within Intron 6 |   |  |
|  | mm   | u-miR-350 | 1 | 1  | ENSMUSG00000026506 |   | Within Intron 3 |   | cloning and<br>characterization of<br>rKAB1, which interacts<br>with KARP-1, localizes<br>in the nucleus and<br>protects cells against<br>oxidative death. Mol<br>Cell Biochem. 2003                     |