**ESM Table 7**

Predicted miR-34 and miR-181 target genes down-regulated in the islets of 12 month-old rats

| microRNA family | Gene name   | MRE for 3'UTR | microRNA family | Gene name | MRE for 3'UTR |
|-----------------|-------------|---------------|-----------------|-----------|---------------|
| miR-34 family   | Prkab2      | 1             | miR-181 family  | Tek       | 1             |
| miR-34 family   | Tgb3        | 1             | miR-181 family  | Myl1      | 1             |
| miR-34 family   | Alox15       | 1             | miR-181 family  | Cyt1      | 2             |
| miR-34 family   | Mrvi1       | 1             | miR-181 family  | Zcchc24   | 1             |
| miR-34 family   | Gp7         | 1             | miR-181 family  | Syn2      | 1             |
| miR-34 family   | Mrvi1       | 1             | miR-181 family  | Gnat3     | 1             |
| miR-34 family   | Dpys5       | 1             | miR-181 family  | Ddn       | 2             |
| miR-34 family   | Kcnk2       | 1             | miR-181 family  | Sall2     | 1             |
| miR-34 family   | Tor1b       | 1             | miR-181 family  | Grap      | 1             |
| miR-34 family   | RGD1560436  | 1             | miR-181 family  | Bcl6b     | 1             |
| miR-34 family   | Coq4        | 1             | miR-181 family  | Csrp1     | 1             |
| miR-34 family   | Serpinc1    | 1             | miR-181 family  | C1qtnf6   | 1             |
| miR-34 family   | Gm52_predicted | 1     | miR-181 family  | Lysmd1    | 1             |
| miR-34 family   | Ucn2        | 1             | miR-181 family  | Myl1      | 1             |
| miR-34 family   | Bin2        | 1             | miR-181 family  | LOC294513 | 1             |
| miR-34 family   | Scly        | 1             | miR-181 family  | Fam84a    | 1             |
| miR-34 family   | Inexa       | 1             | miR-181 family  | Ccl9      | 2             |
| miR-34 family   | Casq2       | 1             | miR-181 family  | Eif2b5    | 1             |
| miR-34 family   | LOC500102   | 1             | miR-181 family  | Snx11     | 1             |
| miR-34 family   | Plekha8     | 1             | miR-181 family  | Dpys5     | 1             |
| miR-34 family   | LOC690806   | 1             | miR-181 family  | Il22ra2   | 2             |
| miR-34 family   | Rhov        | 1             | miR-181 family  | Bspry     | 1             |
| miR-34 family   | Arf4l       | 1             |                 |           |               |
| miR-34 family   | Hr          | 2             |                 |           |               |
| miR-34 family   | Mmp17       | 1             |                 |           |               |
| miR-34 family   | Tek         | 1             |                 |           |               |
| miR-34 family   | Slc16a3     | 1             |                 |           |               |
| miR-34 family   | Gabrd       | 1             |                 |           |               |
| miR-34 family   | Cplxl       | 1             |                 |           |               |
| miR-34 family   | Npy1r       | 1             |                 |           |               |
| miR-34 family   | RGD1310269  | 1             |                 |           |               |
| miR-34 family   | Tmprss13    | 1             |                 |           |               |
| miR-34 family   | Vamp1       | 1             |                 |           |               |
| miR-34 family   | Il22ra2     | 1             |                 |           |               |
| miR-34 family   | Stard8      | 1             |                 |           |               |
| miR-34 family   | Prkag1      | 1             |                 |           |               |
| miR-34 family   | Sox10       | 1             |                 |           |               |
| miR-34 family   | Adams15     | 1             |                 |           |               |
| miR-34 family   | Adamts15    | 1             |                 |           |               |
| miR-34 family   | Myo1f       | 1             |                 |           |               |
| miR-34 family   | nod3l       | 1             |                 |           |               |
| miR-34 family   | Samd14      | 1             |                 |           |               |
| miR-34 family   | Ninj1       | 1             |                 |           |               |
| miR-34 family   | Zc3hc1      | 1             |                 |           |               |
| miR-34 family   | Ros1        | 1             |                 |           |               |
| miR-34 family | Spata2L | 1 |
|--------------|---------|---|
| miR-34 family | Il4ra   | 1 |
